KENWOOD

AV CONTROL CENTER

C-V750

INSTRUCTION MANUAL

KENWOOD CORPORATION

B60-3214-00 (CH) (T) [MC]
98/12 11 10 9 8 7 6 5 4 3 2 1 97/12 11 10 9 8 7 6

Before applying power

⚠ *Caution : Read this section carefully to ensure safe operation.*

Units are designed for operation as follows.

Europe and U.K. ..... AC 230 V only

For the United Kingdom

Factory fitted moulded mains plug

1. The mains plug contains a fuse. For replacement, use only a 13-Amp ASTA-approved (BS1362) fuse.
2. The fuse cover must be refitted when replacing the fuse in the moulded plug.
3. Do not cut off the mains plug from this equipment. If the plug fitted is not suitable for the power points in your home or the cable is too short to reach a power point, then obtain an appropriate safety approved extension lead or adapter, or consult your dealer.
   If nonetheless the mains plug is cut off, remove the fuse and dispose of the plug immediately, to avoid a possible shock hazard by inadvertent connection to the mains supply.

IMPORTANT: The wires in the mains lead are coloured in accordance with the following code:
Blue: Neutral
Brown: Live
Do not connect those leads to the earth terminal of a three-pin plug.

Safety precautions

⚠ *Caution : Read this section carefully to ensure safe operation.*

WARNING : TO PREVENT FIRE OR ELECTRIC SHOCK, DO NOT EXPOSE THIS APPLIANCE TO RAIN OR MOISTURE.

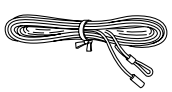
CAUTION RISK OF ELECTRIC SHOCK DO NOT OPEN	CAUTION: TO REDUCE THE RISK OF ELECTRIC SHOCK, DO NOT REMOVE COVER (OR BACK). NO USER-SERVICEABLE PARTS INSIDE, REFER SERVICING TO QUALIFIED SERVICE PERSONNEL.
	THE LIGHTNING FLASH WITH ARROWHEAD SYMBOL, WITHIN AN EQUILATERAL TRIANGLE, IS INTENDED TO ALERT THE USER TO THE PRESENCE OF UNINSULATED "DANGEROUS VOLTAGE" WITHIN THE PRODUCT'S ENCLOSURE THAT MAY BE OF SUFFICIENT MAGNITUDE TO CONSTITUTE A RISK OF ELECTRIC SHOCK TO PERSONS.
	THE EXCLAMATION POINT WITHIN AN EQUILATERAL TRIANGLE IS INTENDED TO ALERT THE USER TO THE PRESENCE OF IMPORTANT OPERATING AND MAINTENANCE (SERVICING) INSTRUCTIONS IN THE LITERATURE ACCOMPANYING THE APPLIANCE.

Unpacking

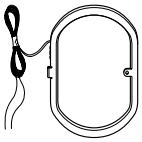
Unpack the unit carefully and make sure that all accessories are put aside so they will not be lost. Examine the unit for any possibility of shipping damage. If your unit is damaged or fails to operate, notify your dealer immediately. If your unit was shipped to you directly, notify the shipping company without delay. Only the consignee (the person or company receiving the unit) can file a claim against the carrier for shipping damage. We recommend that you retain the original carton and packing materials for use should you transport or ship the unit in the future.

Accessories

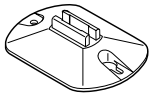
FM indoor antenna (1)



AM loop antenna (1)

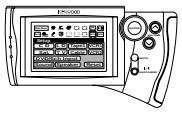


Loop antenna stand (1)

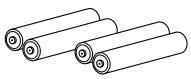


Cable tidy (2)

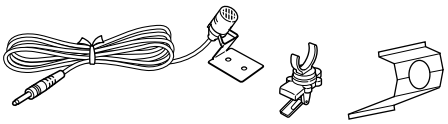
Graphical Remote Control unit (1)



Batteries(R03/AAA) (4)



Microphone (1)



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Special features

True home theater sound

Dolby Digital (AC-3)

The DOLBY DIGITAL (AC-3) mode lets you enjoy full digital surround from software processed in the Dolby Digital (AC-3) format. Dolby Digital (AC-3) provides up to 5.1 channels of independent digital audio for better sound quality and more powerful presence than conventional Dolby Surround.

Dolby Pro Logic & Dolby 3 Stereo

This surround system reproduces theater-like surround sound from video software marked DOLBY SURROUND.
The PRO LOGIC mode uses the built-in adaptive matrix circuit to steer the Left, Center, Right and Surround channel audio signals.
The 3 STEREO mode will redirect the surround signal to the front left and right speakers when only the front and center speakers are used.

New DSP surround modes

The DSP (Digital Signal Processor) used for this AV CONTROL CENTER incorporates a variety of high quality adjustable sound fields, like "ARENA", "JAZZ CLUB", "STADIUM", "CATHEDRAL" and "THEATER", to add the "presence" associated with an arena, jazz club or stadium (etc.) to the original signal. It is compatible with almost any kind of program source.

Graphical Remote Control unit "GRC"

The GRC unit incorporates a large-screen LCD which displays key icons and parameters. The LCD also shows information on the operating modes of the main unit.
To improve the operability, frequently used icons are located in the higher hierarchy in the LCD display and icons which are associated between each other are shown on the same screen.
The GRC unit is a multi-function remote control unit which can be programmed to control AV components from other manufacturers than KENWOOD.

RDS (Radio Data System) tuner

This AV CONTROL CENTER is equipped with a RDS tuner that provides several convenient tuning functions: AUTO MEMORY, to automatically preset up to 40 RDS stations broadcasting different programs; station name display, to show you the name of the current broadcast station; and PTY search to let you tune stations by program type.

ONE TOUCH OPERATION

Simply pressing the play key of the CD player or cassettedeck turns the system on and starts playback.

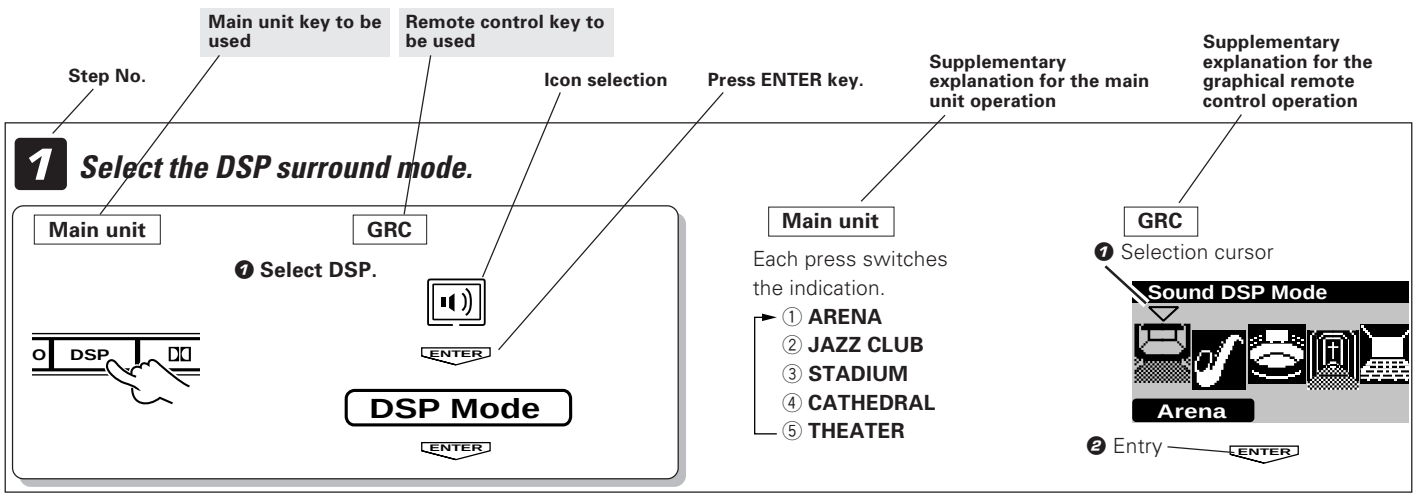
How to use this manual

In this manual, the operating procedures are described on the left half of each page and the supplementary explanation, display information and other notes on each step are described on the right half.

(Example of instructions in this manual)

Operating procedure steps (Left half)

Supplementary explanation (Right half)

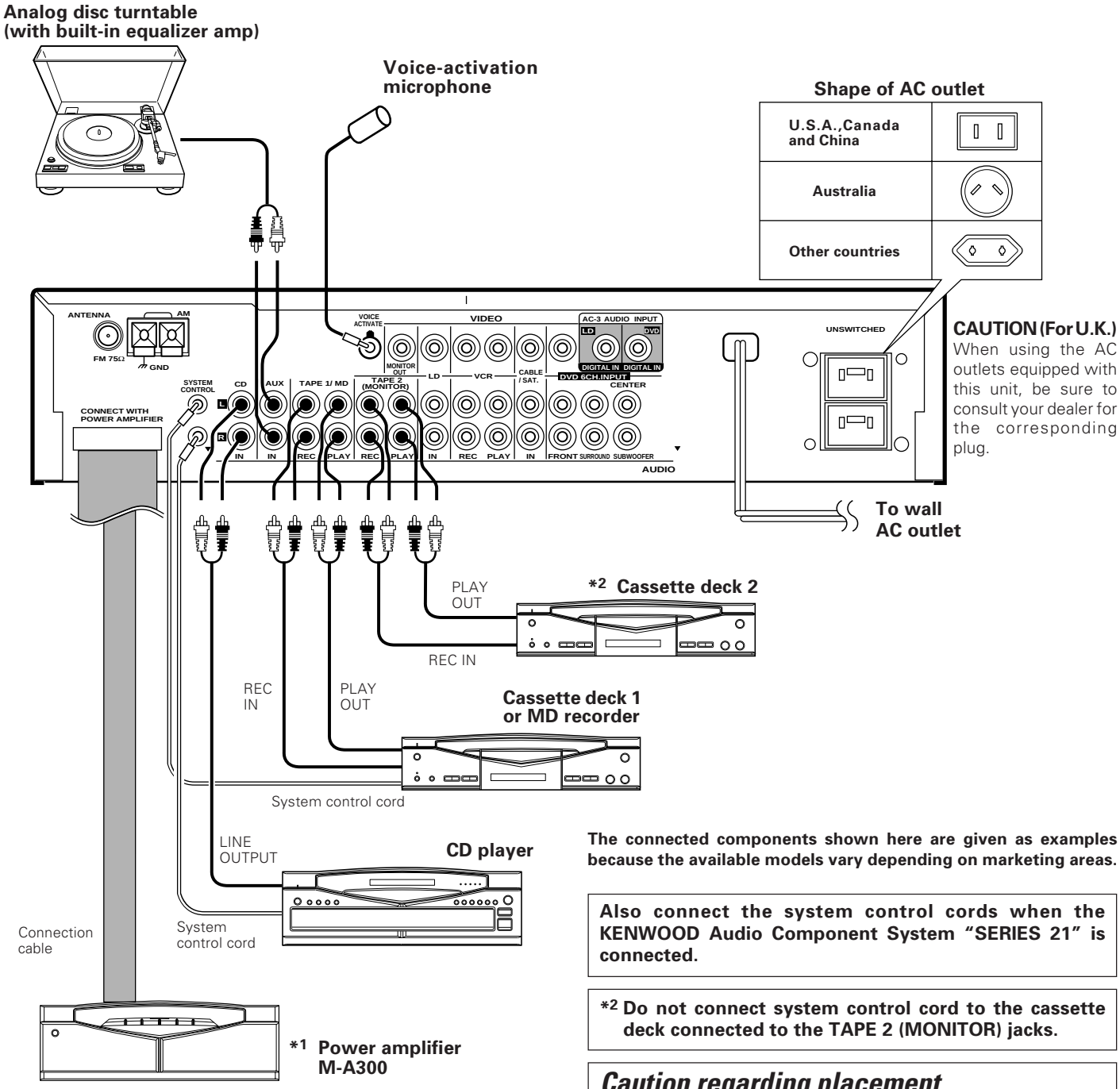


Connection of audio components *(CD player, cassette deck, power amplifier)*

Make connection as shown below.
When connecting the related system components, refer also to the instruction manuals of the related components.
⚠ Do not plug in the power lead until all connections are completed.

Malfunction of microcomputer

If operation is not possible or erroneous display appears even though all connections have been made properly, reset the microcomputer referring to "In case of difficulty". → 58



The connected components shown here are given as examples because the available models vary depending on marketing areas.

Also connect the system control cords when the KENWOOD Audio Component System "SERIES 21" is connected.

***2 Do not connect system control cord to the cassette deck connected to the TAPE 2 (MONITOR) jacks.**

Caution regarding placement

To maintain proper ventilation, be sure to leave a space around the unit (from the largest outer dimensions including projections) equal to, or greater than, shown below.

Left and right panels	**: 10 cm**
Rear panel	**: 10 cm**
Top panel	**: 50 cm**

***1 For the connection and operation procedures of the power amplifier and speakers, refer to the instruction manual of the power amplifier (M-A300).**

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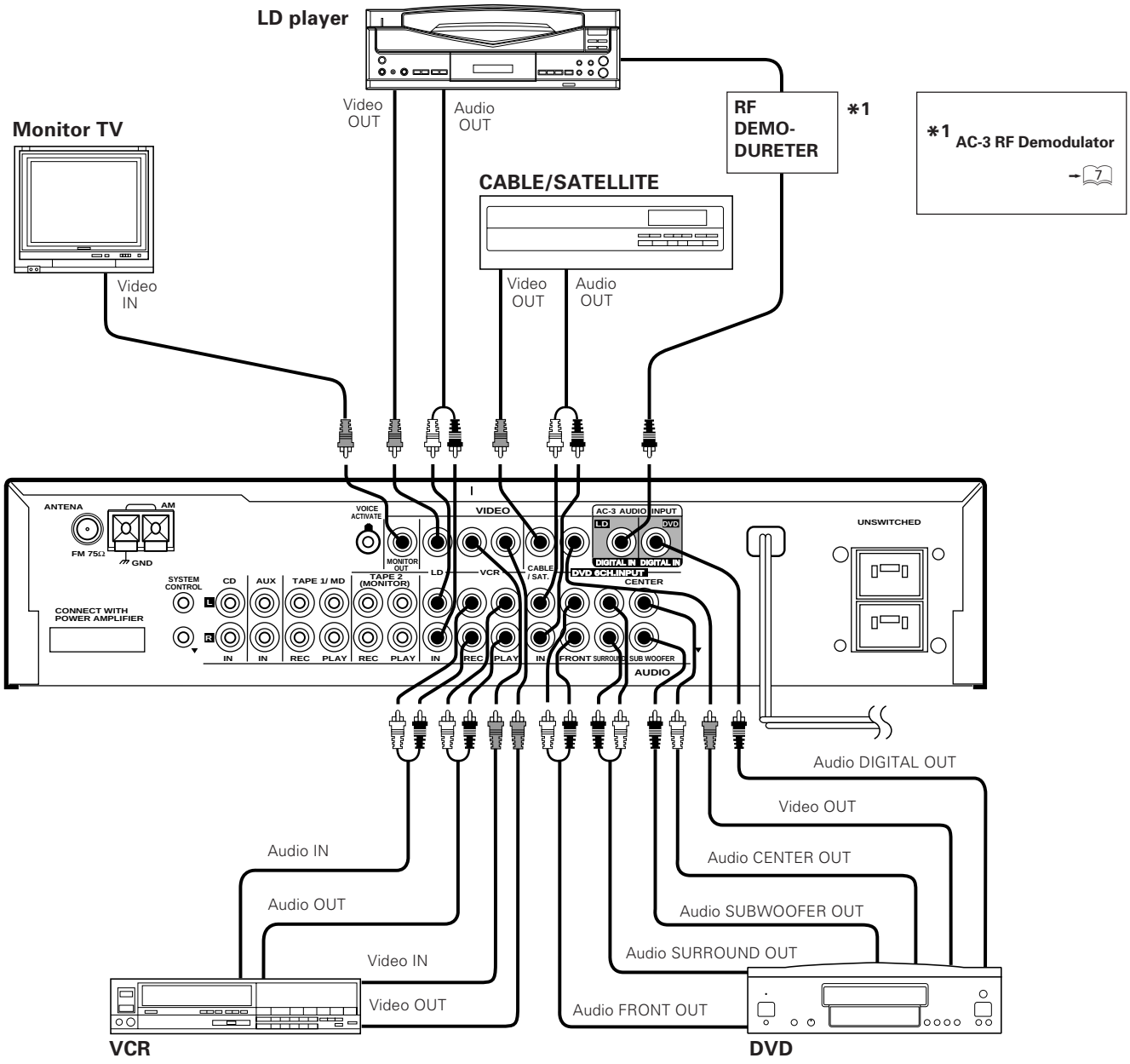
Connection of video components *(LD player, VCR, cable/satellite tuner, DVD)*



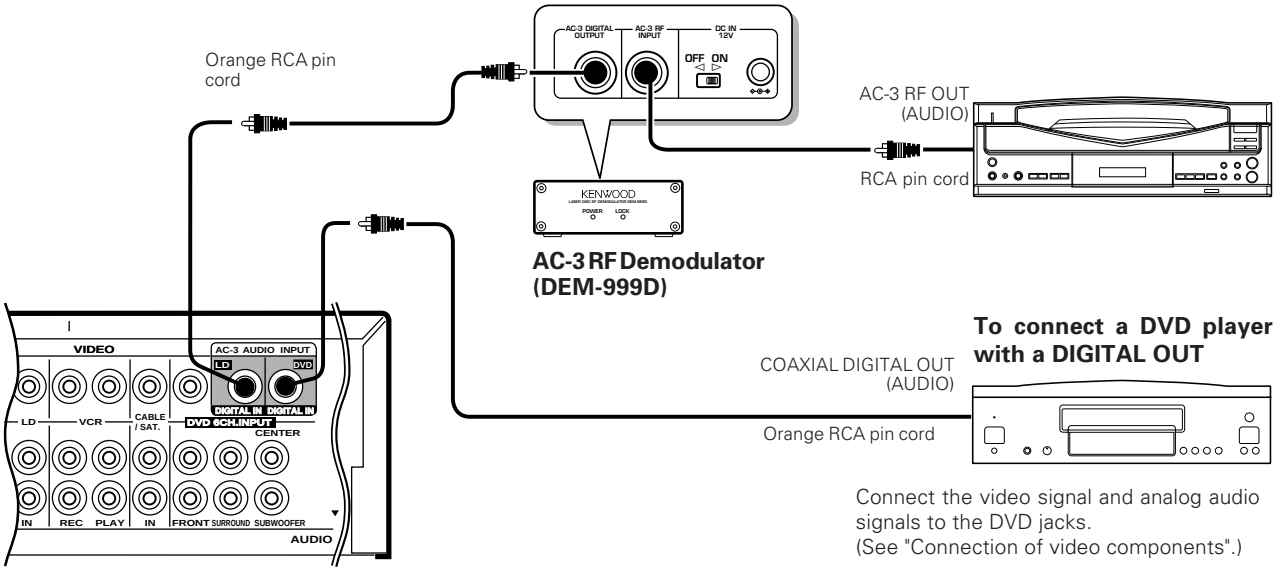
The connected components are given as examples because the available models vary depending on marketing areas.

Digital connections

Make connections as shown below.
The digital in jacks can accept either Dolby Digital (AC-3) or PCM signals (the input signal type is detected automatically).
When connecting the related system components, be sure to also refer to the instruction manuals supplied with the components you are connecting.
Do not connect the power cord to a wall outlet until all connections are completed.

Connect components capable of outputting Dolby Digital (AC-3) or standard PCM format digital signals.

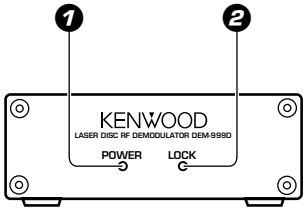
To connect an LD player with a DIGITAL RF OUT.
Connect the LD player to the KENWOOD RF digital demodulator (DEM-999D).
Then connect the demodulator to the AC-3 AUDIO INPUT DIGITAL IN.
Connect the video signal and analog audio signals to LD jacks (See "Connection of video components".)

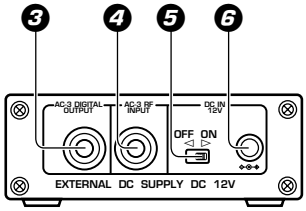


Connect the video signal and analog audio signals to the DVD jacks.
(See "Connection of video components".)

The connected components are given as examples because the available models vary depending on marketing areas.

AC-3 RF Demodulator DEM-999D





❶ POWER indicator
Lights (red) when the power switch (❺) is set to ON .

❷ LOCK indicator
Lights when an AC-3 RF signal is input to the AC-3 RF INPUT jack (❹).

❸ AC-3 DIGITAL OUTPUT (coaxial)
Connect this jack to the LD, AC-3 AUDIO INPUT (DIGITAL), jack on your AV CONTROL CENTER.
It outputs AC-3 coaxial digital signals when the POWER (❺) is set to ON and an AC-3 RF signal is input to the AC-3 RF INPUT jack (❹).

❹ AC-3 RF INPUT
Connect this jack to the AC-3 RF OUTPUT jack on your LD player.

❺ POWER switch
Use to switch the power ON/OFF.

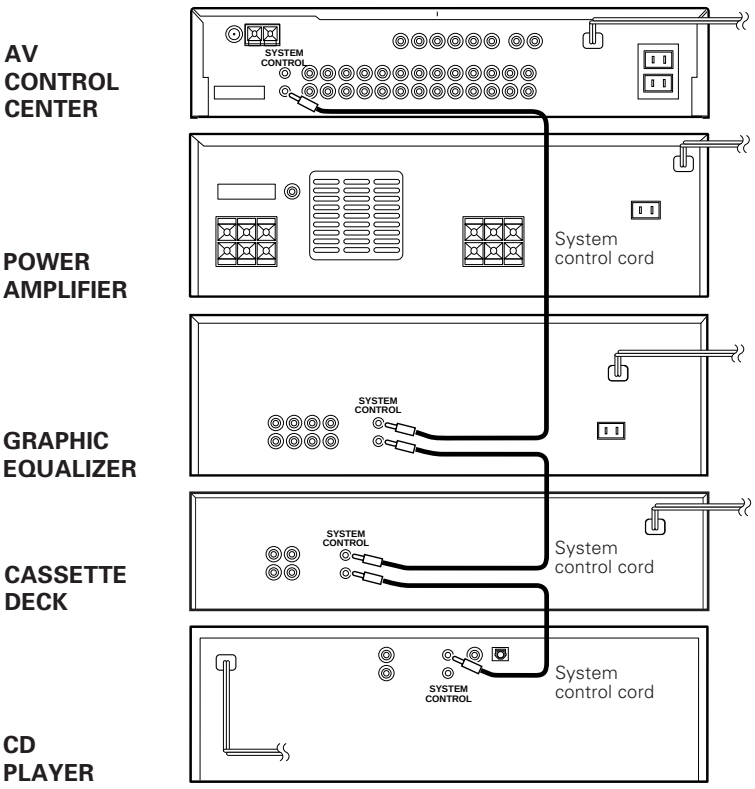
❻ DC IN (12V) jack
Connect this jack and inlet power cord to the AC adaptor supplied with your demodulator. Connect the power cord to a wall outlet after completing all of the other connections.

Place the power supply away from the demodulator, AV CONTROL CENTER, and any antennas.

About the system control connections

When this unit is connected to KENWOOD audio component system "SERIES 21", also connect them through the system control cords to allow system-control operations between components.

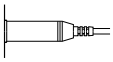
Connection example



The SERIES 21 components which can be system-connected with this unit include the LD player, MD recorder and DVD player.

Notes

1. Do not connect the SERIES 21 components to other system components using system control cords.
2. Do not connect system control cords to any components other than those specified by KENWOOD. It may cause a malfunction and damage your equipment.
3. Be sure the system control plugs are inserted all the way in to the system control terminals.



About the system control operations

(Available operations when SERIES 21 components are connected through system control cords)

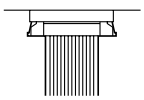
Remote Control
Lets you operate source components with the system remote supplied with this unit.

Automatic Operation
When you start playback from a source component, the input selector on this unit switches to that component automatically. (Except TAPE 2)

Synchronized Recording
Lets you synchronize recording with the start of playback when recording from CD, LD or MD.

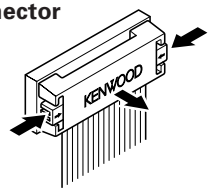
Connection of flat-cable connector

Inserting the connector



Push in the connector straight into the socket until it clicks to indicate the locking.

Removing the connector



Push and hold the two ends of the connector, and pull it straight outward.

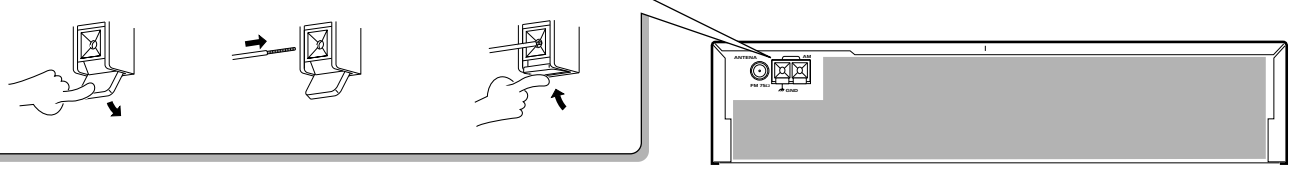
Notes

1. Connect all cords firmly. If connections are loose, there could be loss of sound or noise produced.
2. When plugging and unplugging connection cords, be sure to first remove the power cord from the AC outlet. Plugging / unplugging connection cords without removal of the power cord can cause malfunctions or damage to the unit.
3. Do not connect up a power source which is larger than that indicated on the socket at the rear of the unit.
4. If the system control cords or audio cords are not connected properly, the remote control or automatic operation between system components will not work properly.

Connection of antenna

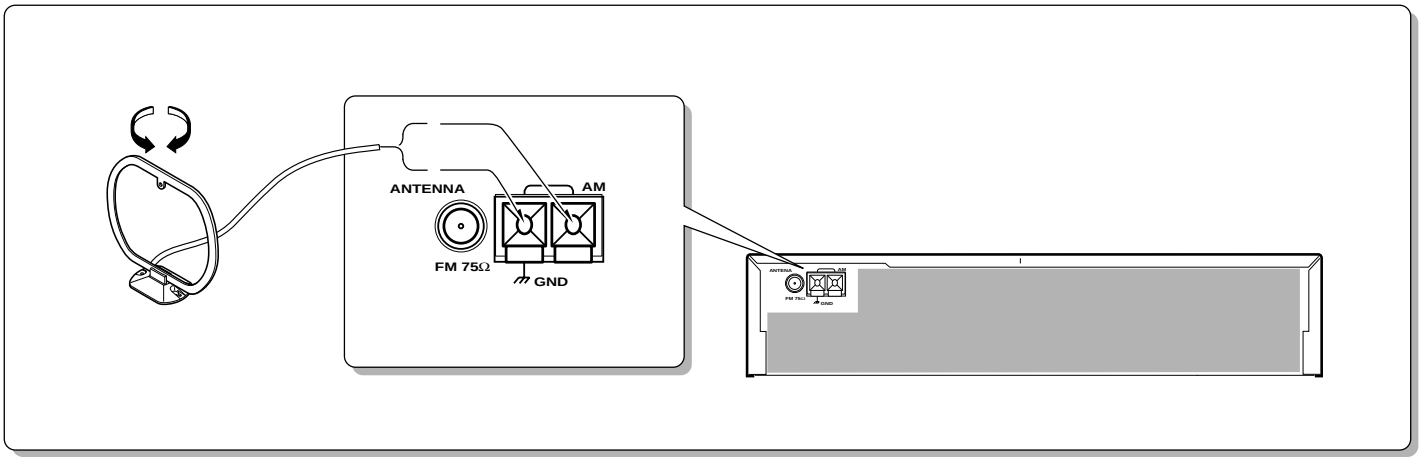
Connection method to each antenna terminal

❶ Push lever. ❷ Insert cord. ❸ Return lever.



AM loop antenna connection

The supplied antenna is for indoor use. Place it as far as possible from the main system, TV set, speaker cords and power cord, and set it to a direction which provides the best reception.

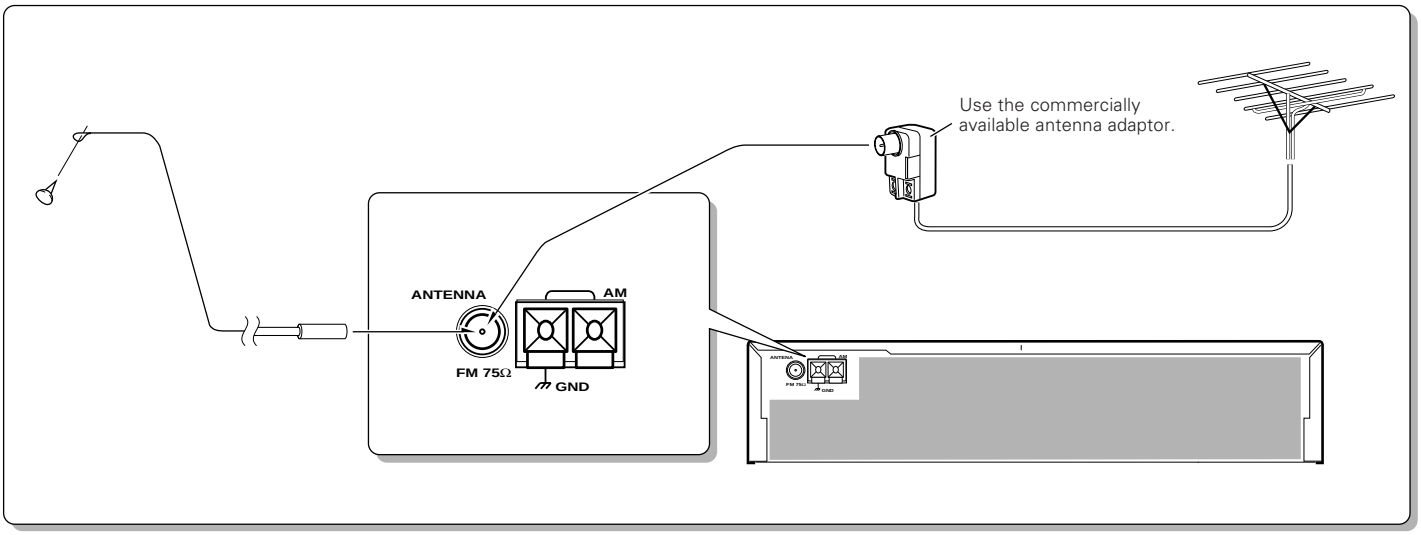


FM indoor antenna connection

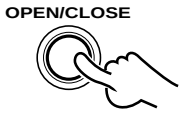
The accessory antenna is for temporary indoor use only. For stable signal reception we recommend using an outdoor antenna. Remove the indoor antenna if you connect one outdoors.

FM outdoor antenna connection

Lead the 75 Ω coaxial cable connected to the FM outdoor antenna into the room and connect it to the FM 75 Ω terminal.



Opening/closing the door



Note

When opening or closing the door, be careful not to catch your finger in the door. Otherwise there is a risk of injury.

Changing the input selection display (AUTO key)

***1: To change the TAPE 1 display to MD display**

❶ Select "TAPE 1" with the INPUT SELECTOR .
❷ Press and hold the AUTO key for more than 2 seconds, until "MD" is displayed.

Each press switches the indication.

① TAPE1 → ② MD

***2: To change the DVD display to the 6ch INPUT display**

❶ Select "DVD" with the INPUT SELECTOR .
❷ Press and hold the AUTO key for more than 2 seconds, until "6 ch INPUT" is displayed.

Each press switches the indication.

① DVD-A → ② 6ch INPUT

To make the system control operation, the input selection display should be switched according to the actually connected components.
About the system control connections → 8

Switching the display mode (DISPLAY key)

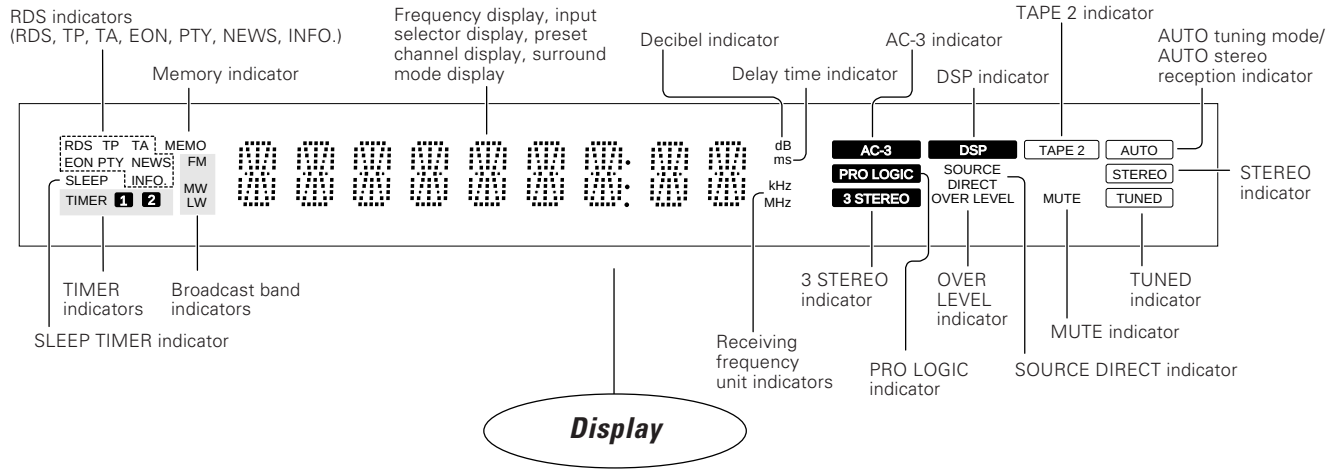
Use the following procedure to change the display mode.

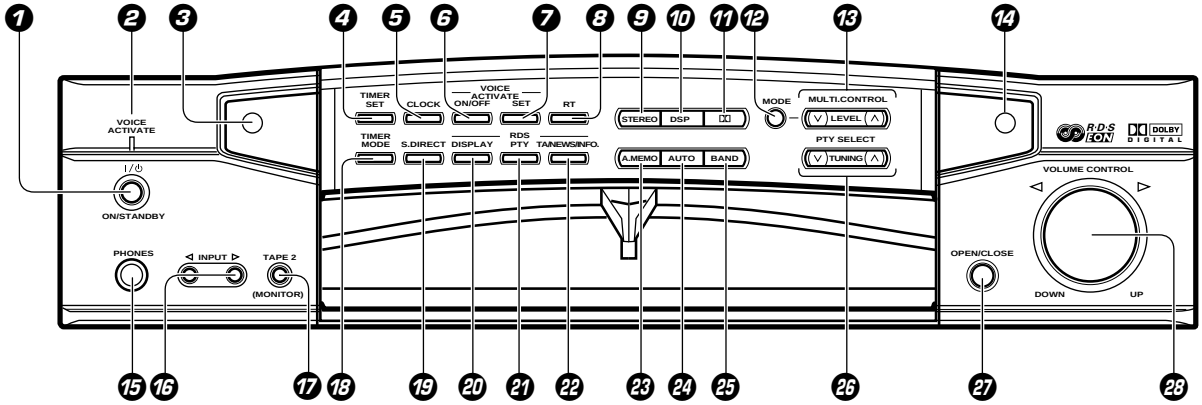
❶ Press the DISPLAY key (remote control only).

Each press switches the indication.

① INPUT SELECTOR display → ② DOLBY/DSP/ STEREO display → ③ Time display

- The time display is displayed for only 5 seconds, after which the INPUT SELECTOR display appears automatically.
- The display of ② is not shown during SOURCE DIRECT and 6ch INPUT operations.





The keys which have the same names as the controls on the remote control unit provide the same functions as them.

❶ I/⏻ (ON/STANDBY) key
Press to switch between ON and STANDBY.

❷ VOICE ACTIVATE indicator
Lights to indicate an occurrence of voice activation.

❸ Remote sensor

❹ TIMER SET key
Press to set the timer function.

❺ CLOCK key
Press to set the clock.

❻ VOICE ACTIVATE ON/OFF key
Press to switch the voice-activation operation ON and OFF.

❼ VOICE ACTIVATE SET key
Press to record words for use in voice activation.

❽ RT key
Press to display radio text.

❾ STEREO key

❿ DSP key

⓫ DOLBY key

⓬ MODE key
Press to switch various setting modes.

⓭ MULTI. CONTROL keys
Press to select various setting modes.

⓮ GRC transmitter
Outputs the signals transmitted to the Graphical Remote Control.

⓯ PHONES jack
For use in headphones listening.

⓰ INPUT SELECTOR key
Press to select the input.

⓱ TAPE 2 (MONITOR) key
For use in monitoring of recording, etc.

⓲ TIMER MODE key
Press to switch the timer modes.

⓳ S.DIRECT key
Press to switch the Source Direct function which allows to reproduce the source with a better quality.

⓴ RDS DISPLAY key
Press to switch the RDS display.

㉑ RDS PTY key
For use during reception of RDS broadcasting.

㉒ RDS TA/NEWS/INFO. key
For use during reception of RDS broadcasting.

㉓ A.MEMO key
Press when using the auto memory function.

㉔ AUTO key
Press to select the tuning mode.
The auto tuning or manual tuning mode can be selected.
Pressing and holding this key for more than 2 seconds changes the TAPE 1 input display to MD display or the DVD-A input display to 6ch INPUT display. →10

㉕ BAND key
Press to switch the broadcasting band.

㉖ TUNING keys (∨ , ∧)
Press to select the radio station to be received.
These keys are also used in the clock adjustment and timer operations.

㉗ OPEN/CLOSE key

㉘ VOLUME CONTROL knob

STANDBY mode indication

While standby mode is indicated, a small amount of power is supplied to the system to back up the memory. In this mode, the system can be turned ON by remote control.
With this unit, standby mode is indicated by means of the display panel. The system is in standby mode while the clock display is shown.

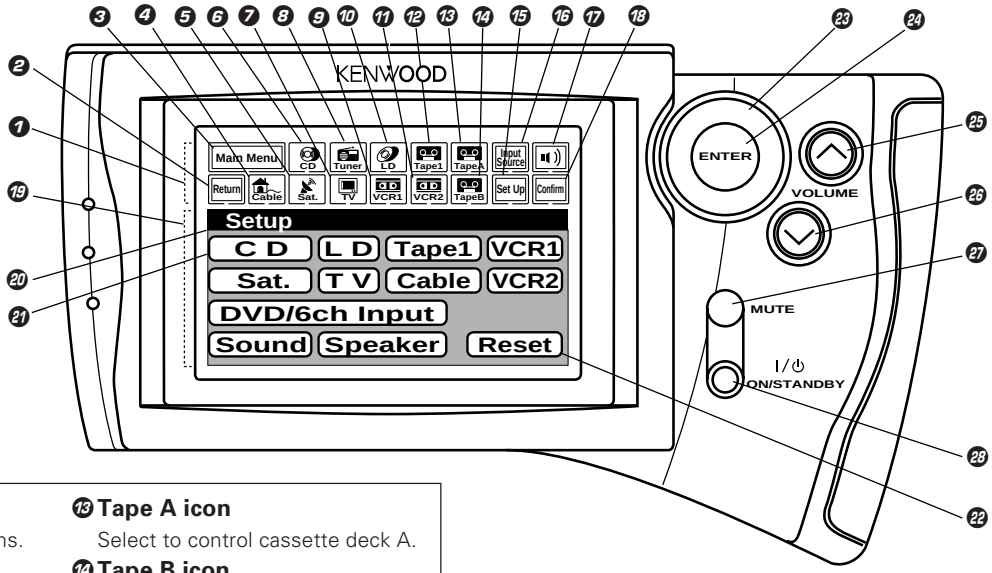
Controls and indicators

The Graphical Remote Control (GRC) unit provided with the AV CONTROL CENTER can also control KENWOOD cassette decks, CD player and LD player which are connected to it through system control cords. For details of the controllable functions, refer to the instruction manuals of these components.

Model: GRC-150
Infrared system

Note

Perform "Model Type Setup" of the GRC before using it.



Segment screen

❶ Segment screen
This area displays the fixed icons.

❷ Return icon
Select to return to the previous display.

❸ Main Menu icon
Select to change the input source or select Main Menu 2.

❹ Cable TV icon
Select to control the cable TV.

❺ Satellite Tuner icon
Select to control the satellite tuner.

❻ CD icon
Select to control the CD player.

❼ TV icon
Select to control the TV.

❽ Tuner icon
Select to control the tuner.

❾ VCR 1 icon
Select to control VCR 1.

❿ LD icon
Select to control the LD player.

⓫ VCR 2 icon
Select to control VCR 2.

⓬ Tape 1 icon
Select to control cassette deck 1.

⓭ Tape A icon
Select to control cassette deck A.

⓮ Tape B icon
Select to control cassette deck B.

⓯ Set Up icon
Select to make setup operations.

⓰ Input Source icon
Select to switch the input source.

⓱ Sound icon
Select to control the sound-related functions.

⓲ Confirm icon
Select to confirm a setting, etc.

- The input source can be selected using icon ❸ or ⓰.
- Icons ❹ to ⓮ are used to select the component to be controlled.

Menu screen

⓳ Menu screen
This area displays the control key icons and level information.

⓴ Mode display
The above illustration indicates the Setup mode.

㉑ CD icon
Select to set up the CD player.

㉒ Reset icon
Select to return to the "Model Type Setup" menu screen.

Operation keys

㉓ Joystick key
For use in selecting icons.
The joystick moves in 8 directions.

㉔ ENTER key
Press to enter a selection.

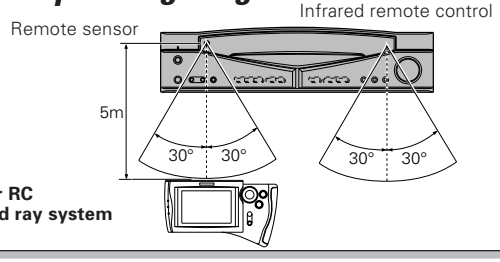
㉕ VOLUME (UP) control key
Press to increase the volume level.

㉖ VOLUME (DOWN) control key
Press to decrease the volume level.

㉗ MUTE key
Press to mute sound temporarily.

㉘ I/⏻ (ON/STANDBY) key
Press to switch the AV CONTROL CENTER and the components connected to it through system control cords between ON and STANDBY.

Approximate operating range



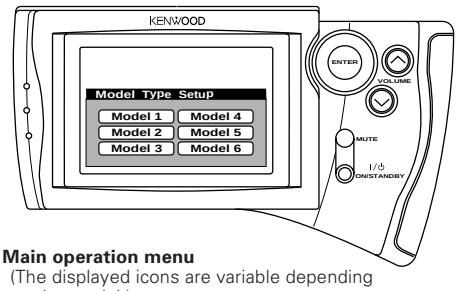
GRC or RC
Infrared ray system

Notes

1. The supplied batteries are intended for use in operation check. Therefore, their lives may be shorter than ordinary batteries.
2. When the remote-controllable distance gets shorter than before, replace all four batteries with new ones.
3. Malfunction may occur if direct sunlight or the light of a high-frequency lighting fluorescent lamp enters the remote sensor. In such a case, change the system installation position to prevent the malfunction.
4. The GRC display may show erroneous information when the GRC unit is operated from outside the specified range.

Setting up the GRC according to your AV CONTROL CENTER (Model Type Setup)

Perform the following procedure after inserting batteries for the first time and every time after changing them.



Main operation menu
(The displayed icons are variable depending on the model.)

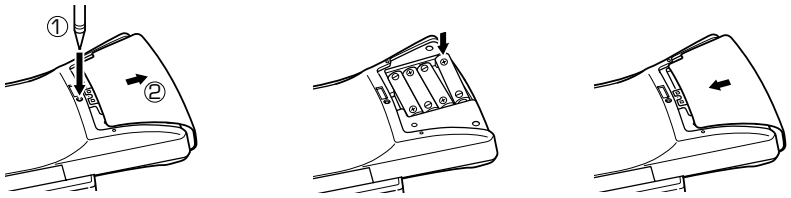
Preparation

- Press the I/⏻ (ON/STANDBY) key of the main unit to the ON mode.

Model Type Setup (GRC setup procedure)

1 Loading batteries

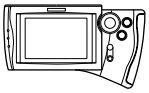
❶ **Remove the cover.** ❷ **Insert batteries.** ❸ **Close the cover.**



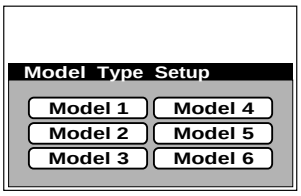
Caution in battery replacement

- Insert four AAA-size (R03/UM-4) batteries as indicated by the polarity marking.
- To maintain the memory of the settings you made before, complete the battery replacement operation within 30 seconds.
- The procedure on the left should also be performed when resetting the GRC (as a measure against its malfunction). However, in this case, wait for about five minutes after removing the batteries and before re-inserting them.

2 Check the display.



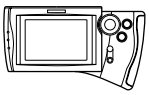
The "Model Type Setup" screen appears.



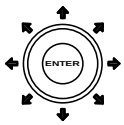
3 Move the cursor to the Model type icon matching the AV CONTROL CENTER.

❶ **Identify the model type.**
(use the table on the right).

❷ **Move the cursor.**



It can be moved in 8 directions depending on how you press the joystick key.

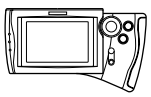


The icon on which the cursor is moved blinks in reverse video.

AV CONTROL CENTER Model	GRC "Model Type Setup" icon
C-V100	Model 1
C-V150	Model 1
C-V300	Model 2
C-V350	Model 2
C-V500	Model 3
C-V550	Model 4
C-V700	Model 4
C-V750	Model 4
C-V770	Model 3

4 Enter the selection.

Press the ENTER key.



ENTER

To change Model Type Setup

❶ **Select Set Up.** Set Up

❷ **Press the ENTER key.** ENTER

❸ **Select Reset.** Reset

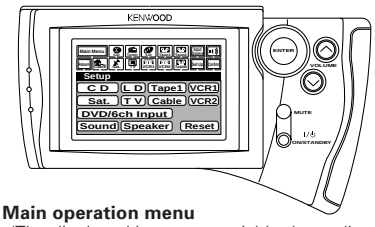
❹ **Press the ENTER key.** ENTER

❺ **Perform the setup procedure from step "2 Check the display".**

- The above operation clears all of the previously made settings and resets the unit to the initial condition.

Setting up the GRC according to the option components (Set Up)

The following procedures prepare the GRC for operating the components connected through system control cords. Make sure that these components are connected through system control cords. →8



Main operation menu
(The displayed icons are variable depending on the model.)

- If you proceed to the following "Set Up" operations immediately after steps ❶ to ❹ of "Model Type Setup (GRC setup procedure)" on page →13, start operation with step "❸ Select the CD icon" in the "Set Up CD" procedure.

Set Up CD

Setup of GRC according to the CD player in use

❶ Select the "Set Up" icon.

Set Up

❷ Press the "ENTER" key to enter the selection.

ENTER

❸ Select the "CD" icon.

C D

❹ Press the "ENTER" key to enter the selection.

ENTER

❺ Select the "Single" icon.

Single

- Select "Single", "Dual", "Carrousel" or "Changer" according to the connected CD player type.

❻ Press the "ENTER" key to enter the selection.

ENTER

❼ Select the "Main Menu" icon.

Main Menu

❽ Press the "ENTER" key to enter the selection.

ENTER

- Icon CD appears at the moment the setup has completed.

Set Up Tape 1

Setup of GRC according to the cassette deck in use

❶ Select the "Set Up" icon.

Set Up

❷ Press the "ENTER" key to enter the selection.

ENTER

❸ Select the "Tape 1" icon.

Tape1

❹ Press the "ENTER" key to enter the selection.

ENTER

❺ Select the "Dual" icon.

Dual

- Select "Dual" or "Single" according to the connected cassette deck type.

❻ Press the "ENTER" key to enter the selection.

ENTER

❼ Select the "Main Menu" icon.

Main Menu

❽ Press the "ENTER" key to enter the selection.

ENTER

- Icons TapeA / TapeB or icon Tape1 appear at the moment the setup has completed.

Set Up LD

Setup of GRC according to the LD player in use

❶ Select the "Set Up" icon.

Set Up

❷ Press the "ENTER" key to enter the selection.

ENTER

❸ Select the "LD" icon.

L D

❹ Press the "ENTER" key to enter the selection.

ENTER

❺ Select the "System Control" icon.

System Control

- Select "System Control" or "IR" according to the connected LD player type.

❻ Press the "ENTER" key to enter the selection.

ENTER

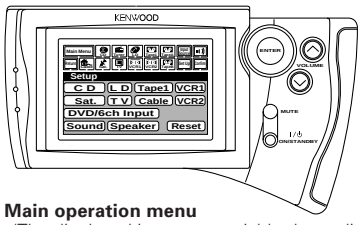
- Icon LD appears at the moment the setup has completed.

In the operations of the GRC (Graphical Remote Control unit), proceed to each step within 10 seconds after the previous step.
The display disappears in 10 seconds.

To resume GRC display, move the Joystick key in any directions.

Setting up the GRC according to other components (Set Up)

The GRC can also be used to remote control other components which are not connected through system control cords. To control another component, it is required to register the setup code corresponding to it beforehand. →53



Main operation menu
(The displayed icons are variable depending on the model.)

Registering setup codes for VCR 1

1 *Find the setup code of the component to be registered by referring to the Setup code chart in this manual.*

2 *Enter the setup code.*

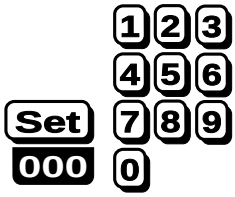
❶ Select the "Set Up" icon.

❷ Enter the selection
(by pressing the **"ENTER"** key).

❸ Select the "VCR 1" icon.

❹ Enter the selection
(by pressing the **"ENTER"** key).

❺ Enter the setup code.



❻ Select the "Set" icon.

❼ Enter the selection
(by pressing the **"ENTER"** key).

Check the operation of the component.

❶ Display the operation screen of the component to be checked.
❷ Turn on the component from the GRC and confirm the actual component.

- If there is more than one setup code, input each code to see which one turns the power on. That will be the correct code for your component.

Although each setup code is designed to work with a number of different models, certain codes may not work with some models. (Also, certain codes may only operate some of the functions available on a given model.)
With some models, be sure to keep the ENTER key pressed for a while.

Use the numeric keys as shown below.

Entry examples:

431 ..... 4 ENTER 3 ENTER 1 ENTER

400 ..... 4 ENTER 0 ENTER 0 ENTER

- When a code which is not shown in the setup code chart is entered, the entered code disappears automatically.

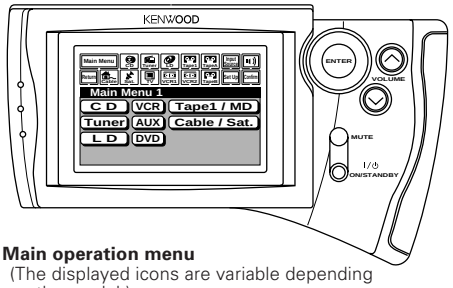
Registering setup codes of other components

The procedure of steps 1 and 2-❶ to ❼ of "Registering setup code for VCR 1" also allows to register the components listed below to remote control them from the GRC.

Registering setup code for VCR 2
Registering setup code for TV
Registering setup code for CABLE
Registering setup code for SATELLITE
Registering setup code for LD player (IR)

Controlling the AV CONTROL CENTER

The operations required to remote control the AV CONTROL CENTER includes the INPUT SELECTOR selection, display mode selection, stereo selection and so on.
The following procedures show how to remote control the basic operations of the GRC.



Main operation menu
(The displayed icons are variable depending on the model.)

Operation examples

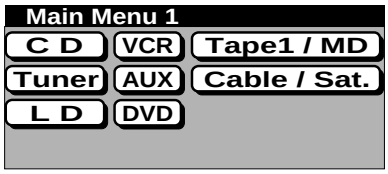
Switching the INPUT SELECTOR (Selecting the CD input)

❶ **Select the "Main Menu" icon in the fixed segment screen by operating the joystick.**

❷ **Press the "ENTER" key to enter the selection.**

ENTER

❸ **Select the "CD" icon with the joystick.**



❹ **Press the "ENTER" key to enter the selection.**

ENTER

❺ **The input source is switched to "CD".**

- **Other input than CD can be selected in step ❸.**

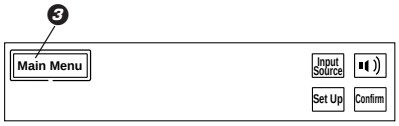
Switching the display mode of the AV CONTROL CENTER

❶ **Select the "Main Menu" icon in the fixed segment screen by operating the joystick.**

❷ **Press the "ENTER" key to enter the selection.**

ENTER

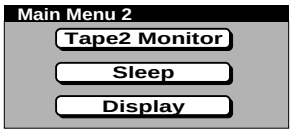
❸ **Select the "Main Menu" icon again.**



❹ **Press the "ENTER" key to enter the selection.**

ENTER

❺ **Select the "Display" icon.**



❻ **Press the "ENTER" key to enter the selection.**

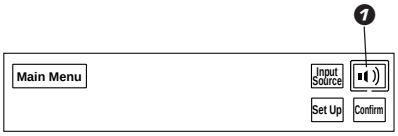
ENTER

❼ **Each press of the "ENTER" key switches the display mode.**

- It is also possible to select the Tape 2 Monitor or Sleep icon in step ❺.

Selecting the stereo mode

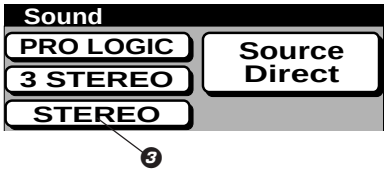
❶ **Select the "Sound" icon in the fixed segment screen by operating the joystick.**



❷ **Press the "ENTER" key to enter the selection.**

ENTER

❸ **Select the "STEREO" icon with the joystick.**



❹ **Press the "ENTER" key to enter the selection.**

ENTER

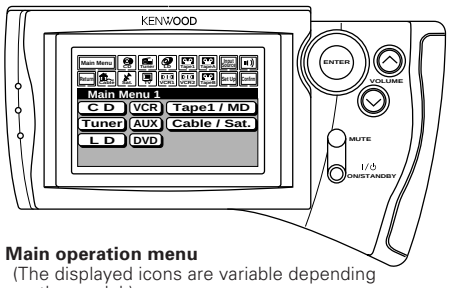
- It is also possible to select the Pro Logic, 3 STEREO or Source Direct icon in step ❸.

Controlling the components connected through system control cords

When a CD player, cassette deck and/or LD player are connected with the AV CONTROL CENTER through system control cords, their system control operations are possible from the GRC.

Preparations

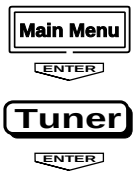
- System control connection → 8
- Model Type Setup → 13
- Setup of source components → 14



Main operation menu
(The displayed icons are variable depending on the model.)

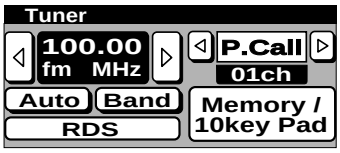
Operating the tuner

❶ **Select the "Tuner" input.**



❷ **Display the tuner operation menu.**

❸ **Select the icon to be operated.**



❹ **Enter the selection**
(by pressing the **"ENTER"** key).

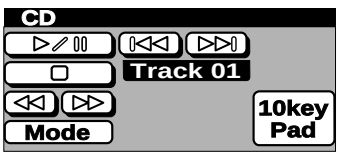
- After selecting the icon, press the **"ENTER"** key to enter the selection.
- Any of the keys which can control the tuner can be selected.

Operating the CD player

❶ **Select the "CD" input.**

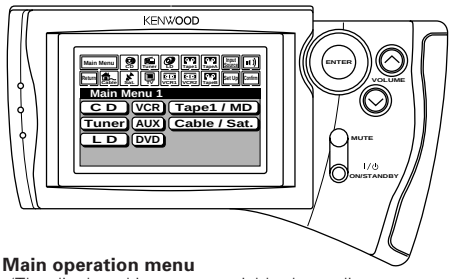
❷ **Display the CD operation menu.**

❸ **Select the icon to be operated.**



❹ **Enter the selection**
(by pressing the **"ENTER"** key).

- Any of the CD player operation keys can be selected.
- The menu display shown on the left is an example which appears with a single CD player.
- For the operation of the CD player, also read the instruction manual of the CD player.



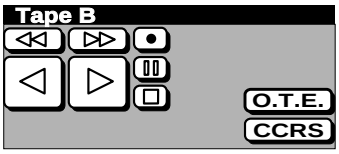
Main operation menu
(The displayed icons are variable depending on the model.)

Operating the cassette deck

❶ **Select the "Tape 1" input.**

❷ **Display the cassette deck operation menu.**

❸ **Select the icon to be operated.**



❹ **Enter the selection**
(by pressing the **"ENTER"** key).

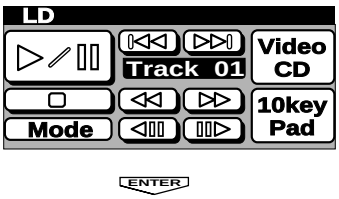
- The procedure on the left is an example assuming that "Dual" has been selected in the "Setup" operation.
- In case "Single" was selected in the Setup operation, the "Tape 1" icon is displayed.
- Any of the cassette deck operation keys can be selected.
- For the operation of the cassette deck, also read the instruction manual of the cassette deck.

Operating the LD player

❶ **Select the "LD" input.**

❷ **Display the LD player operation menu.**

❸ **Select the icon to be operated.**



❹ **Enter the selection**
(by pressing the **"ENTER"** key).

- Any of the LD player operation keys can be selected.
- The procedure on the left is an example assuming that "System Control" has been selected in the "Setup" operation.
- For the operation of the LD player, also read the instruction manual of the LD player.

One-touch operation and easy operation features

(CD player, cassette deck and LD player)

When the system is in standby mode, the operations as described below are possible provided that the associated components are connected through system control cords.

- Use the main unit keys for operation.

Preparations

❶ Ensure that system control cords are connected.
❷ Set the power switch of the cassette deck and LD player to the ON position.
❸ Set the power switch of the power amplifier to the ON position.
❹ Load the source component with the software to be played.
❺ Press the I/⏻ (ON/STANDBY) key of the AV CONTROL CENTER to put it to standby mode.

- The clock information is displayed in standby mode.

Function available with the play key operation

❶ Press the play key.
❷ The system is switched from standby mode to ON mode.
❸ The input selector is switched automatically.
❹ Playback starts.

- CD player and cassette deck

Function available with the eject key operation

❶ Press the eject key.
❷ The system is switched from standby mode to ON mode.
❸ The tray panel of the source component opens.

- CD player and cassette deck
- This operation is not available from the eject key of a double cassette deck.

Operation available by switching the input selector

❶ Select the desired input with the input selector.
❷ The selected source component starts to play.

- Turn on the system before switching the input selector.
- This operation is available when the CD, TAPE 1 or LD input is selected.

System component startup by voice activation

When the VOICE ACTIVATE ON/OFF key is set to ON, speaking a previously recorded word into the exclusive microphone switches the system components from standby mode to ON mode.
The voice activation can use either the preset word ("KENWOOD") (spoken by any person) or the desired words recorded by the user (spoken by a specific person(s)).

If the system is not activated properly by your pronunciation of "KENWOOD", it is recommended to record your own words and use them for the voice activation (specific person). →21

Starting the system components by voice activation *(by any person)*

Preparation for voice activation (when the system is to be activated by speaking "KENWOOD")

Main unit

❶ Ensure that the exclusive microphone is connected. →5

❷ Press the I/⏻ (ON/STANDBY) key to ON mode.

❸ Press the OPEN/CLOSE key to open the door.

❹ Press the VOICE ACTIVATE ON/OFF key to ON
(so that the indicator lights in red).

Lights in red.

❺ Press the OPEN/CLOSE key to close the door.

❻ Press the I/⏻ (ON/STANDBY) key to STANDBY mode
(so that the display shows the clock information).

- Load the CD player or LD player with the software to be played.

Each press switches the function as follows.
① When the indicator is lit:
.....VOICE ACTIVATE is ON.
② When the indicator is not lit:
.....VOICE ACTIVATE is OFF.

Operation for voice activation of system components (by any person)

❶ Speak "KENWOOD" into the exclusive microphone.

❷ The system components are switched from standby mode to ON mode. The input selection is switched to CD or LD, and the corresponding component starts playback.

- The voice is recognized by word "KENWOOD" spoken by any person.
- If both the CD player and LD player have been connected, the CD player is given the precedence.

Auto power-save

When the system has been started up by voice activation, it will return to standby mode by automatically taking the following steps.

❶ The system components are started up by voice activation.
❷ CD or LD starts to be played.
❸ After the CD or LD playback completed, the system has remained in stop mode for about 30 minutes.
❹ The system returns automatically to standby mode.

- The CD player or LD player should be loaded with the software to be played before the voice activation.
- If none of the CD player or LD player has been loaded with software, the system remains in stop mode for about 30 minutes then returns automatically to standby mode.
- If the input source is changed during playback of the CD or LD player after the system has been started up by voice activation, the auto power-save function is released.

The voice activation setting function allows the user to record desired words for use in voice activation.
The user can switch the system from standby mode to ON mode by speaking the recorded words.
However, note that voice activation using preset "KENWOOD" is not possible when the user's words are recorded for voice activation.

Note for voice activation recording

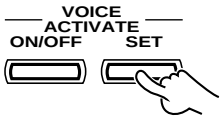
The words for use in voice activation should be recorded in an quiet environment. Correct recording may sometimes be impossible in a noisy environment.
When using the voice activation function, too, adjust the microphone position so that it does not pick up noise.

Recording the user's own voice for voice activation *(by specific person)*

One as well as more than one word can be recorded for use in voice activation.

Main unit

❶ Press the VOICE ACTIVATE SET key to ON.



❷ The indicator lights in amber.
(Record-ready mode)

Lights in amber.

❸ Record voice (words).
(The indicator goes out during recording.)
Speak desired words into the exclusive microphone in less than 2 seconds.

Goes out.

❹ Repeat steps ❷ and ❸ until "RECORD OK" is displayed.
(Repeat 3 times or more.)

❺ Now the recording is completed.
(The indicator lights in green.)

Lights in green.

- Up to 5 words can be recorded provided that they are spoken in less than about 12 seconds. If a long word is recorded, the total number of words which can be recorded may become less than 5.
- Either one user can record up to 5 words or up to 5 users can record one word per person.
- If more than the specified number of words are recorded, the words recorded earlier are overwritten by newly recorded words in the order they were recorded.
- "RECORD" is displayed to indicate the status in which voice recording is possible. "RECORD OK" is displayed when recording has completed successfully.
- Repeat steps ❶ to ❺ if you want to record another word.

- If recording failed, the display lights in red and shows "RECORD NG". In this case, restart the procedure from step ❶.

To erase the recorded voice

Main unit

❶ Press and hold the VOICE ACTIVATE SET key for more than 5 seconds.
❷ The entire recorded voice is erased.

- When the recorded words are erased, the unit returns to the status which allows "Starting the system components by voice activation (by any person) specified by "KENWOOD".

Starting the system by voice activation using the recorded words *(by specific person)*

Preparation for voice activation operation

Main unit

❶ Ensure that the exclusive microphone is connected. →5
❷ Press the I/⏻ (ON/STANDBY) key to ON mode.
❸ Press the OPEN/CLOSE key to open the door.
❹ Press the VOICE ACTIVATE ON/OFF key to ON
(so that the indicator lights in green).
❺ Close the door.
❻ Press the I/⏻ (ON/STANDBY) key to STANDBY mode
(so that the display shows the clock information).

Lights in green.

- Load the CD player or LD player with the software to be played.

- If the indicator lights in red, the unit is in the status which allows "Starting the system components by voice activation (by any person)".

Operation for voice activation of system components (by specific person)

❶ Speak the recorded words into the exclusive microphone.

❷ The system components are switched from standby mode to ON mode. The input selection is switched to CD or LD, and the corresponding component starts playback.

- If both the CD player and LD player have been connected, the CD player is given the precedence.
- The auto power-save operation also occurs after the system components are turned ON by means of voice activation by specific person.

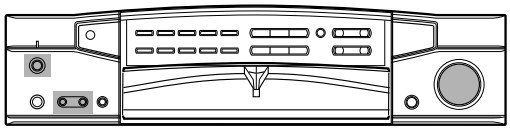
→20

Playing music

The following procedure allows to play a CD or cassette tape.

Preparations

- Connect components as described in "System connection". →5
- Complete "Setup of the Graphical Remote Control (GRC) unit". →12

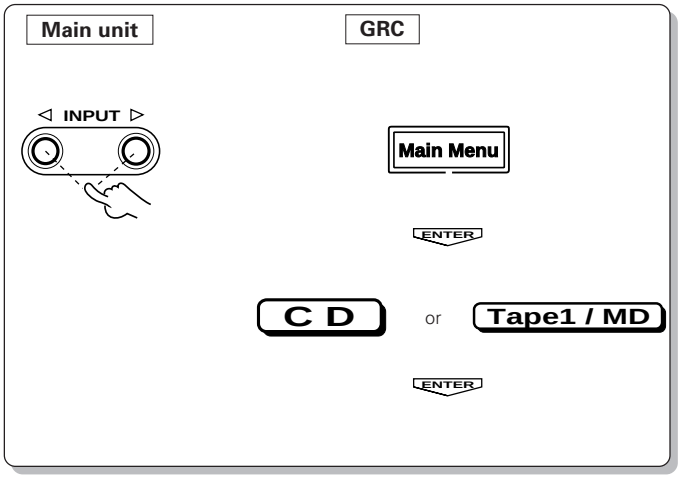


: Keys or controls to be used in this operation

1 Press the ON/STANDBY key to ON.

- Load the CD player or cassette deck with the software to be played.
  ➡Read the instruction manuals of the associated components.

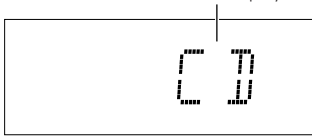
2 Select the input source.



With the main unit operation, the input sources are switched as shown below.

① **VCR**
② **AUX**
③ **TAPE 1 / MD *1**
④ **TUNER (frequency display)**
⑤ **CD**
⑥ **DVD-D**
⑦ **DVD-A / 6ch INPUT *2**
⑧ **LD -D**
⑨ **LD -A**
⑩ **CABLE / SAT**

The selected source is displayed.

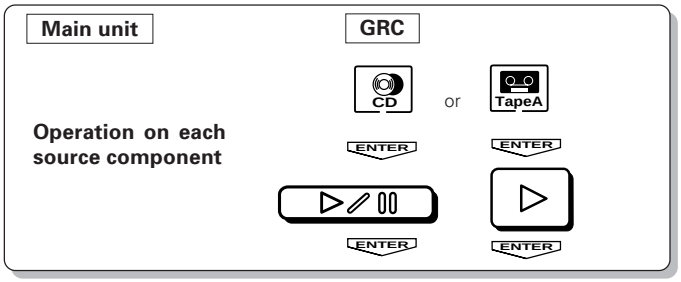


***1: To change the TAPE 1 display to MD display**
***2: To change the DVD-A display to the 6ch INPUT display**

To enable system-control operation, the displayed information should be set according to the actually connected components. →10

- Note for using the 6ch INPUT →25
- Step **3** can be omitted if the easy operation feature is available. →19

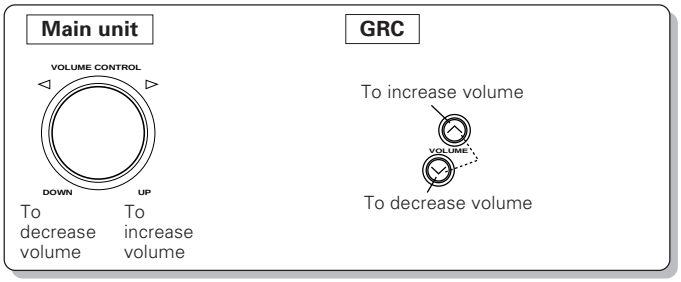
3 Play the selected source.



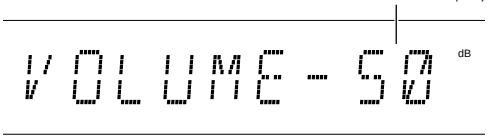
One-touch operation

Pressing the play key of the CD player or cassette deck starts up the system automatically and starts playback. When this operation is used, steps **1** and **2** can be omitted. →19

4 Adjust the volume.

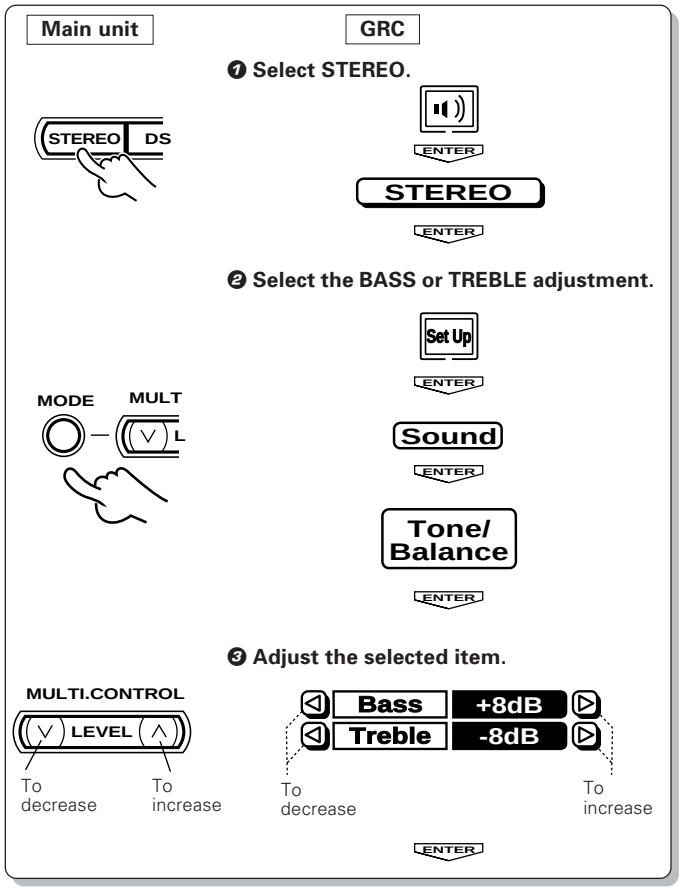


Volume level is displayed.



- The time taken till the volume level is displayed is variable depending on the current operating condition.
- Rotating the **VOLUME CONTROL** at a higher speed increases the amount of volume change (AI VOLUME function).
- The sound of input source cannot be listened to while **TAPE 2 (MONITOR)** is ON.

Adjusting the tone



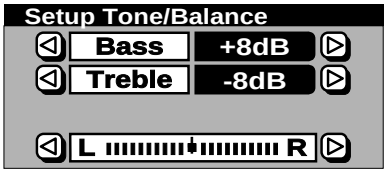
Main unit

Each press of the **MODE** key swithes the adjustment item as shown below.

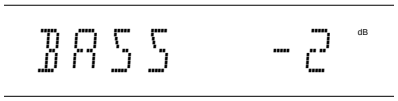
- ① **BASS** : Tone, Bass
- ② **TREBLE** : Tone, Treble
- ③ **L -------- R** : Balance
- ④ **SW ch** : Subwoofer
- ⑤ **INPUT** : Input level

GRC

The adjustment menu appears.



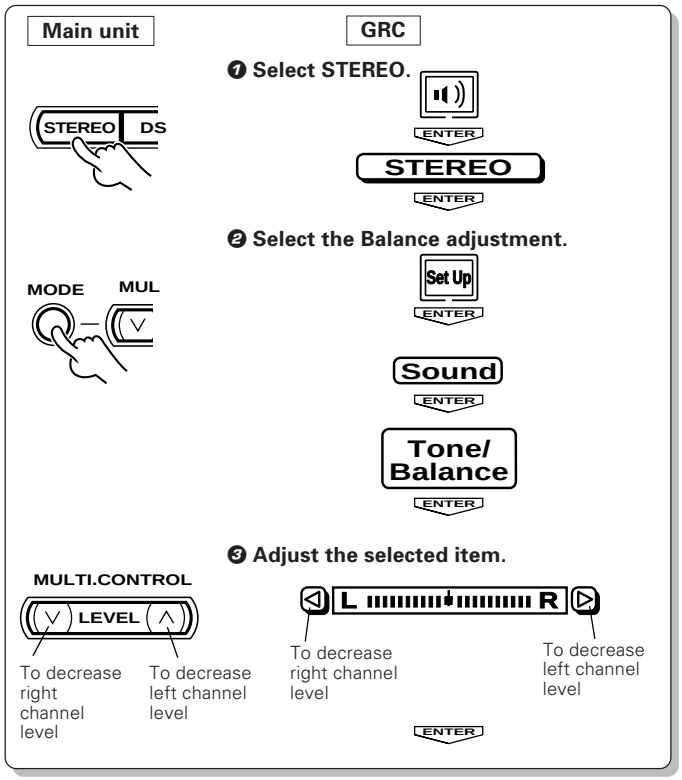
- The display on the GRC disappears if no operation has been performed for about 10 seconds.
- The display on the main unit disappears if no operation has been performed for about 5 seconds.



Display when BASS is selected — The level value changes.

- The level can be adjusted between -8 and +8 in steps of 2.
- The tone cannot be adjusted when the input selector is set to 6ch INPUT or the AC-3 indicator is displayed.

Adjusting the left/right sound balance



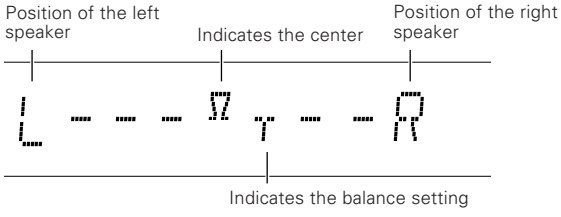
Main unit

Each press of the **MODE** key swithes the adjustment item as shown below.

- ① **BASS** : Tone, Bass
- ② **TREBLE** : Tone, Treble
- ③ **L -------- R** : Balance
- ④ **SW ch** : Subwoofer
- ⑤ **INPUT** : Input level

GRC

- If you proceed to this procedure immediately after that for "Adjusting the tone", you can use the same menu on the GRC.

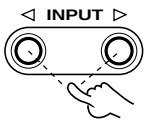


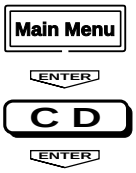
Source Direct playback

This feature allows you to play the source signal with a high quality by passing it only through the minimum required circuitry.

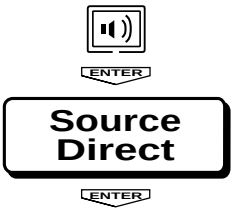
Main unit **GRC**

❶ Select the playback source.





❷ Select SOURCE DIRECT.



❸ Playback the source.

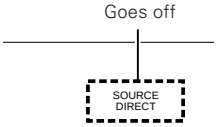
Lights up

- During Source Direct playback, the tone controls (BASS and TREBLE) and balance control are defeated.
- The Source Direct playback is canceled when any key associated with the surround play is pressed.
- The Source Direct playback is not possible when the input selector is set to 6ch INPUT or during Dolby Digital playback.

To cancel

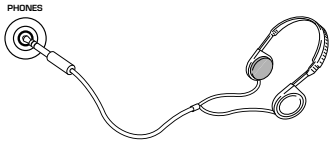
Select the Source Direct (S.DIRECT) again.

Goes off



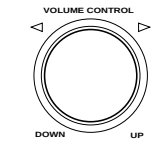
To listen through headphones

❶ Plug headphones.



❷ Adjust the volume.

Main unit **GRC**



To decrease volume

To increase volume

To increase volume

To decrease volume

- The speaker sound is defeated at the moment headphones are inserted into the **PHONES** jack.
- If headphones are plugged in during surround play, its mode is automatically switched to the STEREO mode.
  If they are plugged in during 6ch INPUT play, only the front L ch and R ch will be played.
  The previous status resumes at the moment headphones are unplugged.
- If headphones are plugged in during test tone output, the test tone output stops.

To mute sound temporarily

GRC

Blinks

To cancel

Press the MUTE key again.

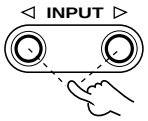
When recording sound with a recorder component of KENWOOD, synchro recording is possible by setting the INPUT SELECTOR to select TAPE1 or MD according to the connected component.

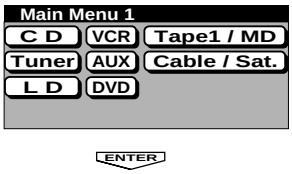
To record a music source

Main unit **GRC**

❶ Select the source to be recorded.

Select an input source other than TAPE 1.





❷ Put the cassette deck in record-pause mode.

❸ Play the source and start recording.

Main unit

Each press switches the indication.

- ① **VCR**
- ② **AUX**
- ③ **TAPE 1 / MD**
- ④ **TUNER (frequency display)**
- ⑤ **CD**
- ⑥ **DVD-D**
- ⑦ **DVD-A / 6ch INPUT**
- ⑧ **LD -D**
- ⑨ **LD -A**
- ⑩ **CABLE / SAT**

GRC

Select the icon of the source to be played.

- The TAPE 1 display can be changed to the MD display and the DVD display can be changed to the 6ch INPUT display. →10
- For the recording using a cassette deck or MD recorder, read the instruction manual of the cassette deck or MD recorder.
- Recording sound from a MD recorder onto TAPE 1 is not possible because the input selection is overlapped.
- Remember that varying the input level during recording causes the recording level to be varied.
- The EON overriding does not occur during recording.

Notes for using the LD, DVD or 6ch INPUT source

When LD, DVD or 6ch INPUT is selected as the input source, the operation is subjected to the following restrictions.

Restrictions with LD and DVD:

1. Both audio and video can be recorded if the source uses analog audio.
2. Audio recording is not available if the source uses digital audio.
   However, audio recording is possible if the analog input from the source is available (when the analog output jacks of the DVD are connected to the FRONT audio input jacks of the AV CONTROL CENTER and the DVD outputs analog audio signal).
3. The TAPE 2 (MONITOR) function is not available with the digital input.

Restrictions with 6ch INPUT:

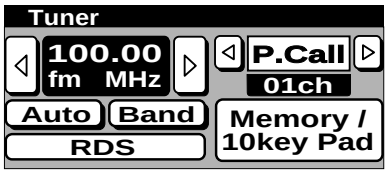
1. The played audio cannot be recorded.
2. The monitor function cannot be activated by pressing the **TAPE 2 (MONITOR)** key.
3. Surround play, its adjustment, STEREO mode play, tone adjustment and Source Direct play are not available.

Regarding TAPE 2 (MONITOR)

A cassette deck or graphic equalizer can be connected to this unit's **TAPE 2 (MONITOR)** terminals. If you connect a graphic equalizer, turn the **TAPE 2 (MONITOR)** key ON. If you connect a 3-head cassette deck, you can monitor the source sound, or the sound being recorded, while recording. Pressing the **TAPE 2 (MONITOR)** key lets you compare the recorded sound and the source sound. Refer to the operating manual for the component you connected for further details.

Broadcast reception

Radio stations can be classified into RDS (Radio Data System) stations and other stations. For listening to RDS stations or storing RDS stations in preset memory, see section entitled "Functions of RDS". →27

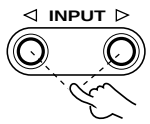


Main operation menu
(The displayed icons are variable depending on the model.)

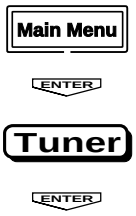
Receiving broadcast station

1 Select the TUNER input.

Main unit



GRC

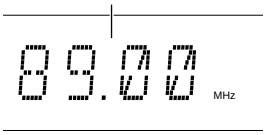


Main unit

Each press switches the indication.

- ① **VCR**
- ② **AUX**
- ③ **TAPE 1 / MD**
- ④ **TUNER (frequency display)**
- ⑤ **CD**
- ⑥ **DVD-D**
- ⑦ **DVD-A / 6ch INPUT**
- ⑧ **LD -D**
- ⑨ **LD -A**
- ⑩ **CABLE / SAT**

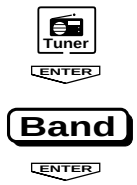
Frequency display



2 Select the broadcast band.

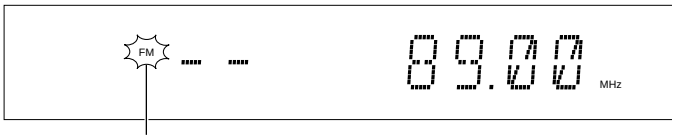
Main unit

GRC



Each press switches the indication.

- ①**FM**
- ②**MW**
- ③**LW**



"FM", "MW" or **"LW"** indicator

● You can also start the procedure from step **2** by omitting step **1**.

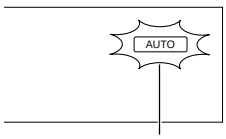
3 Select the tuning method.

Main unit

GRC

Each press switches the indication.

- ① **AUTO** lit (auto tuning)
- ② AUTO not lit (manual tuning)



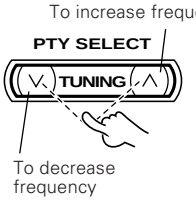
Lights up

● Usually, set the switch to **AUTO** (auto tuning).

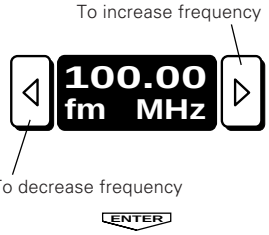
Select manual tuning when noise interferes due to weak radio wave. (The stereo broadcasting is received in monaural during manual tuning.)

4 Select a station.

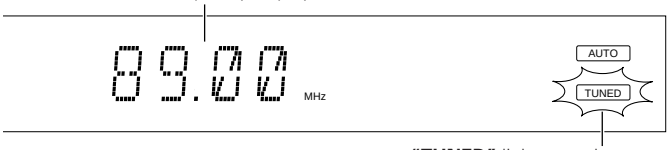
Main unit



GRC



Frequency display



"TUNED" lights up when a station is tuned.

Auto tuning : The next station found is tuned automatically.
Manual tuning : Press repeatedly or hold until a station is tuned.

Functions of RDS

RDS is a system which transmits useful information (digital data) for FM broadcasts together with the broadcast signal. Tuners and receivers designed for RDS reception can extract the information from the broadcast signal for use with various functions such as automatic display of the station name.

Functions made possible with RDS

PTY (Program Type Identification) Search :
The tuner automatically searches for a station which is currently broadcasting a specified program type (genre).

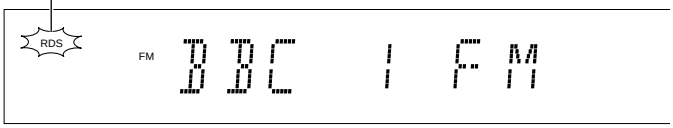
EON (Enhanced Other Network) reservation
By selecting one of the three kinds of programme previously, the tuner switches automatically to a station broadcasting that kind of program whenever it starts broadcasting. When the broadcasting completes, the tuner returns automatically to the originally-received station.

PS (Program Service Name) Display : See figure ① below.
When an RDS broadcast is received, the station name is automatically displayed.

RT (Radio Text) display :See figure ③ below.
Some of the RDS stations also transmit text data.
When the RT display is selected with the **RT** key, the broadcast text is scrolled on the display.

AUTO MEMORY
This function automatically selects the stations providing RDS and FM broadcasting and stores them in the preset memory (up to 40 stations can be preset).

The **RDS** indicator lights up when an RDS broadcast (signal) is received.



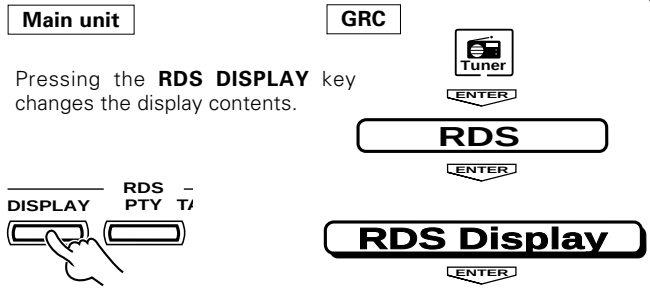
* Some functions may not be provided or be given different names depending on countries or areas.

Before using a function utilizing the RDS, be sure to perform the AUTO MEMORY operation by referring to the description in "Storing RDS stations automatically in the preset memory".

DISPLAY key

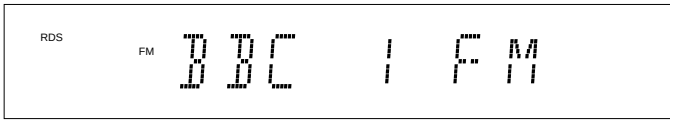
Main unit **GRC**

Pressing the **RDS DISPLAY** key changes the display contents.

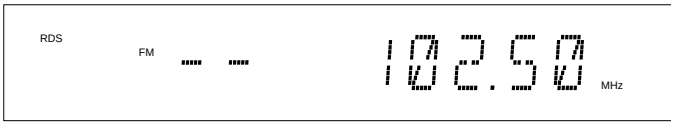


Display mode priority ranking
When an FM broadcast is received :
- ① **PS (Program Service Name) Display**
- ② **Frequency Display**

① **PS (Program Service Name) Display :**
When an RDS broadcast is received, the station name is automatically displayed.
If no PS data was sent, **"NO PS"** is displayed.

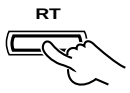


② **Frequency Display :**
The frequency of the current station is displayed.

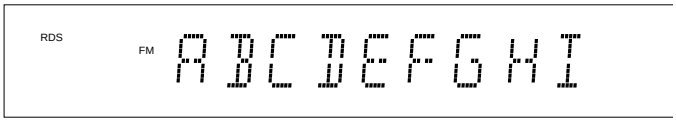


RT key

Main unit

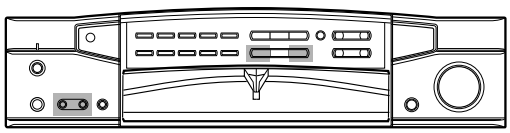


Text is scrolled from the right to the left.



③ **RT (Radio Text) display:**
Text accompanying RDS broadcast is scrolled on the displayed during reception. "**NO RT**" is displayed if the received RDS station is not accompanied with RT data.

Use the operating procedure on this page to store RDS stations automatically in preset memory. Up to 40 RDS stations can be preset and received with a simple key operation.
This unit is compatible with the RDS so it can use convenient RDS functions including automatic tuning and EON reservation.
RDS stations should be stored in the preset memory following the procedure in "Storing RDS stations automatically in preset memory" before listening to RDS stations.



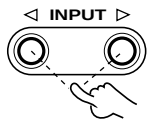
: Keys or controls to be used in this operation

Storing RDS stations automatically in preset memory (AUTO MEMORY)

The following procedure allows to select stations broadcasting RDS broadcast and store them in the preset memory (up to 40 stations can be preset).

1 Set the INPUT SELECTOR to "TUNER".

Main unit

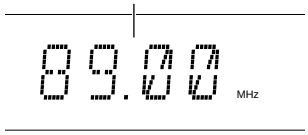


Main unit

Each press switches the indication.

- ① **VCR**
- ② **AUX**
- ③ **TAPE 1 / MD**
- ④ **TUNER (frequency display)**
- ⑤ **CD**
- ⑥ **DVD-D**
- ⑦ **DVD-A / 6ch INPUT**
- ⑧ **LD -D**
- ⑨ **LD -A**
- ⑩ **CABLE / SAT**

Frequency display



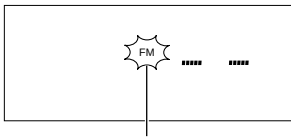
- The previously tuned frequency is displayed.

2 Set the receiving band to "FM".

Main unit

Each press switches the indication.

- ① **FM**
- ② **MW**
- ③ **LW**

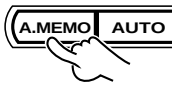


The **"FM"** indicator should light.

3 Preset radio stations by AUTO MEMORY.

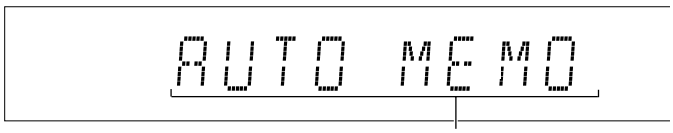
Main unit

Press the A.MEMO key.



In a few minutes, the stations with which RDS broadcast is received are stored in order beginning from preset channels "01" (up to 40 stations can be preset).

When the number of stations providing RDS broadcasting is less than 40, some of other FM stations will be preset in the vacant channels.



Blinks

- If stations have already been stored in preset channels, the same number of these preset channels as the number of stations are cleared and replaced with the data of the newly preset stations.

Receiving a preset RDS station

GRC

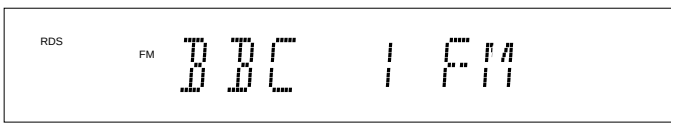
Enter the preset number (max. 40) of the desired RDS station.

Press numeric keys in the order as described below:

To enter "15" ..... +10 ENTER 5 ENTER

To enter "20" ..... +10 ENTER +10 ENTER 0 ENTER

- If you commit a mistake in entering the digit of 10, press the +10 key several times to return to the original display and re-enter the preset number from the beginning.
- Press the **RDS DISPLAY** key to change the displayed information.



The AUTO MEMORY function gives precedence to RDS stations and assigns them from preset number 1. Therefore, when it is required to preset RDS stations as well as non-RDS stations, execute the AUTO MEMORY operation first then proceed to the manual memory operation of non-RDS stations.

Preparation

- Select the **TUNER** input. → 17
- Display the Tuner operation menu. → 17

Order of radio station presetting

Other stations than the RDS stations can be stored in the preset memory by presetting them after the RDS stations preset by AUTO MEMORY as shown below or overwriting the RDS stations preset in some preset numbers.

Preset number

1 2 ..... 39 40

① AUTO MEMORY RDS stations (~ FM stations)	~	②Manual memory FM stations or LW or MW stations

Storing radio stations manually in preset memory

GRC

❶ Select the receiving band.
❷ Select a station or frequency.
❸ Press the Memory key during receiving a station.

Proceed to step ❹ within 10 sec. (If more than 10 sec. have elapsed, press the **Memory** key again.)

Memory / 10key Pad

ENTER

Memory

ENTER

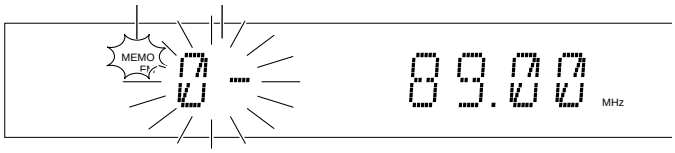
❹ Select one of the preset numbers from 1 to 40.

1 2 3
4 5 6
7 8 9
0 +10

ENTER

- Apart from the auto memory function, RDS stations can also be stored manually in the preset memory.
- In the manual memory storage operation of radio stations, it may take a few minutes after the **Memory** key is pressed till the memory display starts to blink depending on the receiving condition.

Lights up (for 10 sec.) Blinks (for 10 sec.)



Press the numeric keys in the following order.

To store in "15" ..... +10 ENTER 5 ENTER

To store in "20" ..... +10 ENTER +10 ENTER 0 ENTER

- Repeat steps ❶,❷,❸,❹ for each of the stations to be stored in memory.
- If a station is stored in a preset number which has already stored a station memory under it, the previous memory is replaced by the new memory content.
- If RDS stations are stored manually in the preset memory, the PS may not be included in the memory depending on receiving conditions.

Receiving a preset station

GRC

Memory / 10key Pad

ENTER

1 2 3
4 5 6
7 8 9
0 +10

ENTER

Enter the preset number (max. 40) of the desired station.

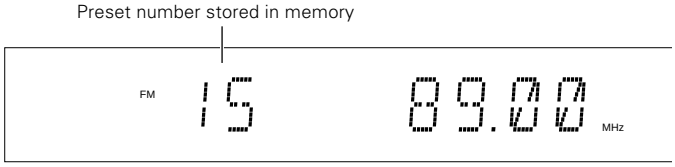
Press the numeric keys in the following order.

To recall "15" ..... +10 ENTER 5 ENTER

To recall "20" ..... +10 ENTER +10 ENTER 0

- If you make a mistake in entering the figure of 10, press the +10 key repeatedly until the original display is shown, then enter the correct number.

Preset number stored in memory



Receiving all preset stations in order (P. CALL)

GRC

The preset number decreases. The preset number increases.

◁ P.Call ▷

01ch

ENTER

- Every time the key is pressed, the next station in the order of the preset number is received.

When you press P.Call ▷ key, ...

1 → 2 → 3 ····· 38 → 39 → 40

When you press ◁ P.Call key, ...

1 ← 2 ← 3 ····· 38 ← 39 ← 40

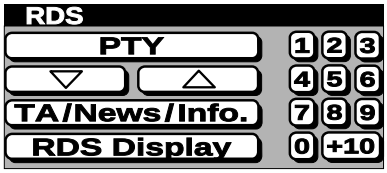
If the key is held pressed ..... Preset stations will be received successively for about half a second each.

By specifying the type of program (genre) you want to listen to, the tuner automatically searches for a station which is currently broadcasting a program of the specified type.

With certain receiving conditions, it may take more than 1 minute until the search completes.

Preparation

- Preset **RDS** stations with the **AUTO MEMORY** function.
- Select the **TUNER** input.
- Set the receiving band to **FM**.

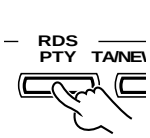


Main operation menu
(The displayed icons are variable depending on the model.)

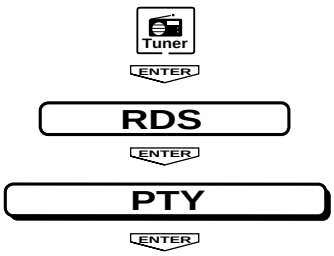
Searching for a desired program type (PTY search)

1 Select the PTY search mode.

Main unit



GRC



When an RDS broadcast is received, the program type is shown on the display. If no PTY data is available, or if the station is not an RDS station, "NONE" is displayed.

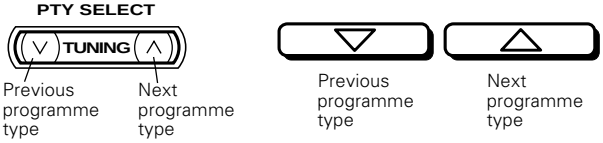
2 Select the desired program type.

Use program type table on the right for your convenience.

Main unit

GRC

Ⓐ When selecting with the up or down keys



Select while **"PTY"** is lit.

The **up** or **down** key allows to select desired programme types from the 29 types. Press and hold the key and release it when the desired type is displayed.

GRC

Ⓑ When selecting with the numeric keys

The **numeric** keys allow to select the desired one of programme types 1 to 0 directly. If you want to select other programme type than them, use the **TUNING** key.

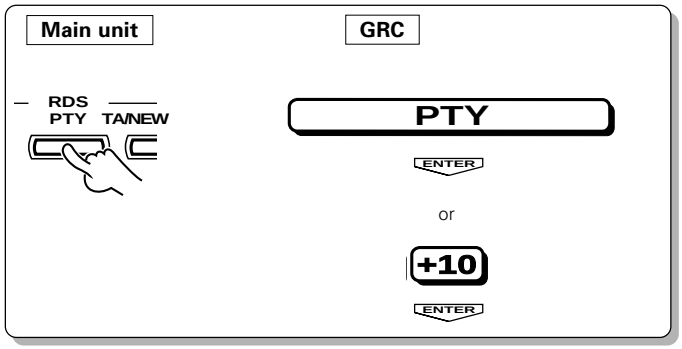
"NO DATA" is displayed if this operation is attempted before performing the AUTO MEMORY operation.

Program type table

Ⓐ	Ⓑ	Program Type Name	Display
	1	Pop Music	POP M
(∨)	2	Rock Music	ROCK M
DOWN	3	* M.O.R. Music	M.O.R. M
	4	Light Classic Music	LIGHT M
	5	Serious Classic Music	CLASSICS
	6	Other Music	OTHER M
		Weather	WEATHER
		Finance	FINANCE
		Children's programmes	CHILDREN
		Social affairs	SOCIAL A
		Religion	RELIGION
(∧)		Phone in	PHONE IN
UP		Travel	TRAVEL
		Leisure	LEISURE
		Jazz Music	JAZZ
		Country Music	COUNTRY
		National Music	NATION M
		Oldies Music	OLDIES
		Folk Music	FOLK M
		Documentary	DOCUMENT
	7	News	NEWS
	8	Current Affairs	AFFAIRS
	9	Information	INFO
	0	Sport	SPORT
		Education	EDUCATE
		Drama	DRAMA
		Cultures	CULTURE
		Science	SCIENCE
		Varied Speech	VARIED

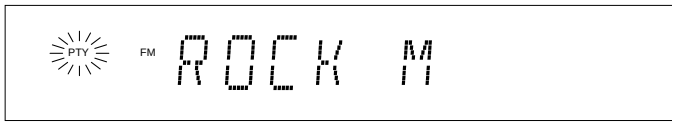
*M.O.R. Music (Middle of the Road Music)

3 Start the search.



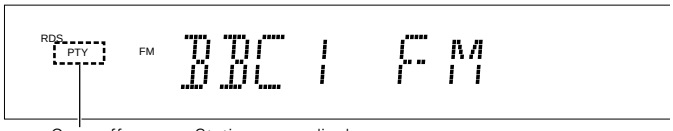
When searching for a Rock Music broadcast.

Display while the tuner is searching.



Blinks — Program type name display.

When a station is received.



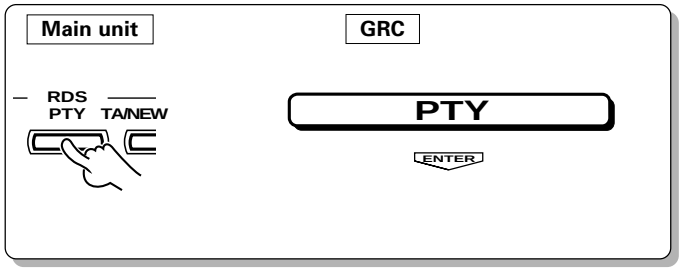
Goes off — Station name display.

- No sound is heard while **"PTY"** is blinking.
- If a program of the desired type cannot be found, **"NO PROG"** is displayed, then after several seconds the display returns to the original display.
- When a station with the selected programme type is searched, its reception starts and the type name display changes to the station name display.

To change to a different program type:

Repeat steps 1, 2, 3.

To cancel



The EON function manages the kinds of information broadcast by other stations than the currently received stations, so that you can make reservation of the desired kind of programme, such as traffic announcement and news, even when there is no station broadcasting it at the present. When a station starts broadcasting a programme of the reserved kind while you are listening to a station with which the EON indicator lights up, the tuner tunes the station automatically. When the station completes the programmed of the reserved kind, the tuner automatically returns to the originally-received station.

Preparation

Perform steps 1 to 3 of "Storing RDS stations automatically in preset memory (AUTO MEMORY)". →28

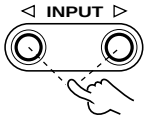
This step can be omitted if you have already executed the AUTO MEMORY procedure.

- The EON function cannot be used if all of the 40 preset stations have been stored using the procedure in "Storing radio stations manually in preset memory". Be sure to use the AUTO MEMORY function.

Reserving reception of desired kind of programme in advance (EON reservation)

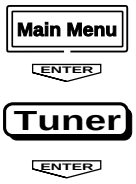
1 *Set the receiving band to FM.*

Main unit



GRC

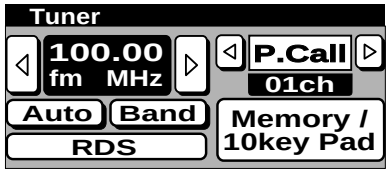
❶ Select the Tuner input.



❷ Display the Tuner operation menu.

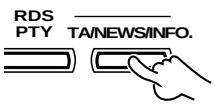
❸ Select the FM Band.

GRC



2 *Select the desired kind of programme.*

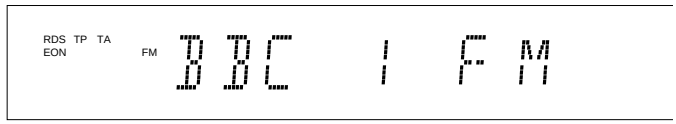
Main unit



GRC

Display when **"TA"** is selected

"TP" lights for stations where TP (Traffic Program) can be received.



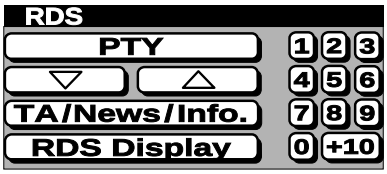
Each press switches the indication.

- ① **TA** (Traffic Announcement)
- ② **NEWS** (News :Programme type)
- ③ **INFO.** (Information :Programme type)
- ④ Goes off (**EON** cancelled)

- If none of **TA, NEWS** and **INFO.** can be selected, execute the AUTO MEMORY procedure again. →28

TP (Traffic Programme) indication

When the **"TP"** indicator is lit, this means that the presently-received station or a station in the same network is transmitting traffic information. When **"TP"** is displayed for the station being received, the traffic information of this station can be received without **EON** reservation.

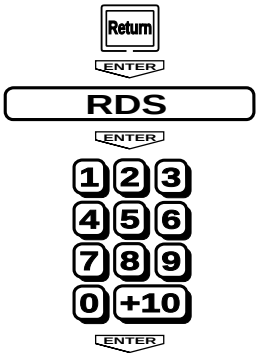


Main operation menu
(The displayed icons are variable depending on the model.)

3 Receive one of RDS stations.

GRC

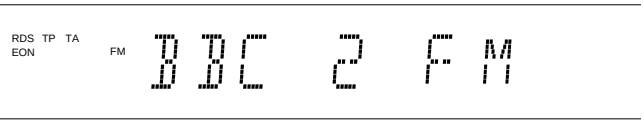
Select a station with which the EON and RDS indicators light.



Press numeric keys in the order as described below:
To enter "15" ..... +10 ENTER 5 ENTER
To enter "20" ..... +10 ENTER +10 ENTER 0 ENTER

- If you commit a mistake in entering the digit of 10, press the +10 key several times to correct.
- Radio stations can also be selected by pressing the **P.CALL** Up or Down key.

Display when **"TA"** is selected



- If you want to reserve **TA**, receive a station with which the **TP** indicator lights.
- When **"EON"** does not light although an RDS station is received, that station is not transmitting EON data. Please select a different station.

4 Wait for a reserved reception to start.

Leave the station with which the EON and RDS indicators light tuned in. The tuner stands by for the reception provided that the power is left ON.

To keep listening to a tuner station:

Receive a station with which the **"EON"** and **"RDS"** indicators light.

To listen to other source than tuner:

① While keeping the tuner tuned into a station with which the **"EON"** and **"RDS"** indicators light, select the desired source with the **INPUT SELECTOR**.

② Even when the INPUT SELECTOR is set to other source than TUNER, it is switched automatically to **TUNER** when EON-reserved broadcast starts.
If the source selected in ① is LD, it continues to be played in this period but the sound is not heard.

③ When the EON-reserved reception completes, the INPUT SELECTOR returns to the previous input source.

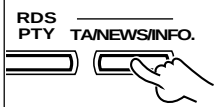
- When the unit is in STANDBY mode, the EON function does not operate.
- When the transmission of the selected program contents ends in case of automatic reception with the EON function, return will be made to the status directly before operation of the EON function.

When waiting for information while listening to an RDS station without the EON function

If the **"EON"** indicator does not light in steps 3 and 4 and the desired kind of information has already been selected, the information from only the station being received will be waited for.

To cancel EON reservation

Main unit



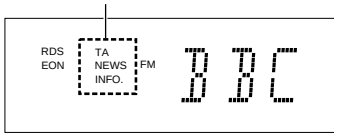
GRC

Turn the "TA", "NEWS" and "INFO." indicators off.

Each press switches the indication.

① **TA**
② **NEWS**
③ **INFO.**
④ Goes off

Should be OFF.



Ambience effects

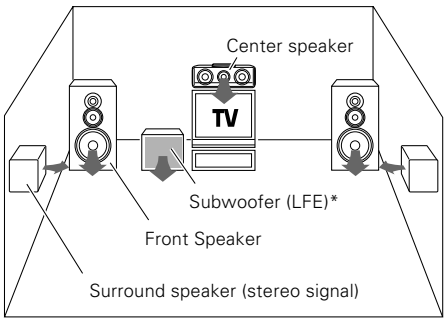
This AV CONTROL CENTER incorporates 4 different sound modes to let you enjoy surround sound with a wide variety of program sources. The Dolby Digital (AC-3) and Dolby Pro Logic surround sound let you enjoy theater-like surround effects when you play Dolby Digital (AC-3) and Dolby Surround program sources (like Laserdiscs and DVDs). Dolby 3 Stereo creates a panoramic frontal sound field. The Digital Signal Processing (DSP) modes let you create a variety of different sonic environments from almost any type of program source.
To obtain the best possible surround sound, be sure to complete "Setup for surround play" before using the surround modes.
→ 36

Sound modes

Dolby Digital (AC-3)

The Dolby Digital (AC-3) surround format lets you enjoy up to 5.1 channels of digital surround sound from Dolby Digital (AC-3) program sources (such as Laserdisc software marked DOLBY DIGITAL). Compared with previous Dolby surround, Dolby Digital (AC-3) provides even better sound quality, greater spatial accuracy, and improved dynamic range.

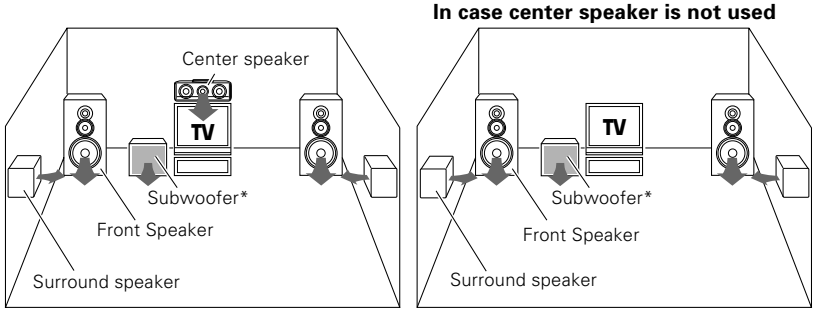
Note
Although a full set of speakers (front left, right, and center, Surround left and right, and a subwoofer) is required for true 5.1 channel Dolby Digital (AC-3) surround sound, this AV CONTROL CENTER lets you enjoy Dolby Digital (AC-3) (and Dolby Pro Logic) program sources, even if you connect only the front speakers.



* LFE = Low Frequency Effects. This channel delivers separate non-directional bass signals to the subwoofer for more dynamic deep bass sound effects.
Although only Dolby Digital (AC-3) soundtracks incorporate a separate low frequency channel, connecting a subwoofer will also improve deep bass performance in the other surround modes.

Dolby Pro Logic

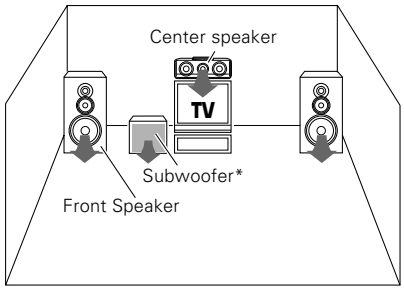
Dolby Pro Logic is a specially encoded 2 channel surround format designed to provide theater-like surround sound from Dolby Surround encoded sources (such as video and Laserdisc software marked DOLBY SURROUND). This AV CONTROL CENTER is equipped with a Dolby Pro Logic surround decoder to let you enjoy the wide variety of currently available Dolby Surround home video software.



* Optional in this mode.

Dolby 3 Stereo

Dolby 3 Stereo is available for systems that do not have surround speakers. When in the Dolby 3 Stereo mode the surround information is redirected to the front left and right speakers. This mode is designed for use with Dolby Surround program sources, but can also improve sound field unity for programs that are not Dolby Surround encoded. Dialog positioning and sound image definition, however, may not be as accurate when used with programs that are not Dolby Surround encoded.

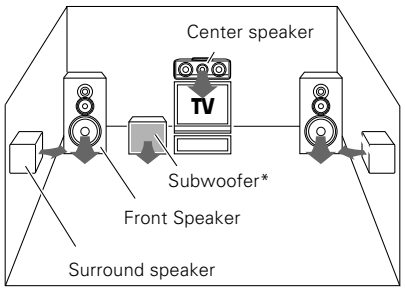


* Optional in this mode.

DSP mode

The DSP mode lets you add the atmosphere of an arena, jazz club, or stadium to almost any type of program source.* These modes are particularly effective when used with stereo program sources, like CD, television, and FM radio. You might enjoy trying the STADIUM or ARENA mode the next time you watch a concert or sporting event!
The WALL parameter lets you adjust the "brightness" of the sonic environment according to your preference.
The ROOM SIZE parameter lets you adjust the size of the sonic environment according to your preference.
The EFFECT level lets you adjust the "presence" of the sonic environment according to your preference.

* The DSP mode will produce a stereo-like surround effect from monaural sources, but there will be some reduction in the presence of the arena, jazz club, or stadium (etc.).



* Optional in this mode.

Recommended speaker installation

It is recommended that the surround speakers are installed straight to the left and right of the listening position or slightly behind, at a height of about 1 meter higher than the listener's ears.

What is DSP?

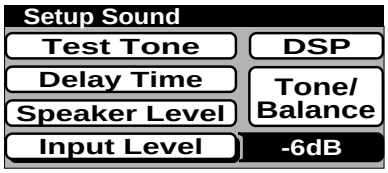
Note

The DSP stands for Digital Signal Processor. In the DSP presence mode, the reverberation components (elements of sound echoed in various spaces) which determine the feeling of presence are created by digital processing by the DSP without spoiling the sound quality of the original music source.

The feeling of presence in the surround effects can be improved by performing the following adjustment procedure according to the speaker system and listening room environment in use.
Once they are adjusted, re-adjustment is not necessary even after the surround mode is switched to other modes.

Adjustment sequence

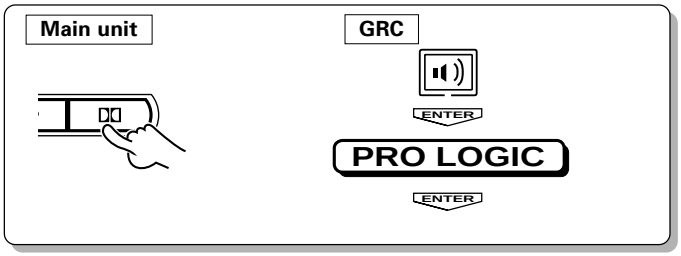
Balance adjustment → Adjustment with test tone → Delay time adjustment



Main operation menu
(The displayed icons are variable depending on the model.)

Setup for surround play

1 Select the Dolby mode.

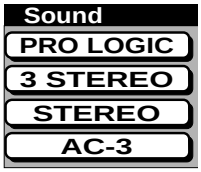


- Select the Dolby mode according to the played source and component in use. →39
- The AC-3 mode can be used when the Dolby Digital signal is available.
- Switching is not possible when the 6ch INPUT is used.

Main unit

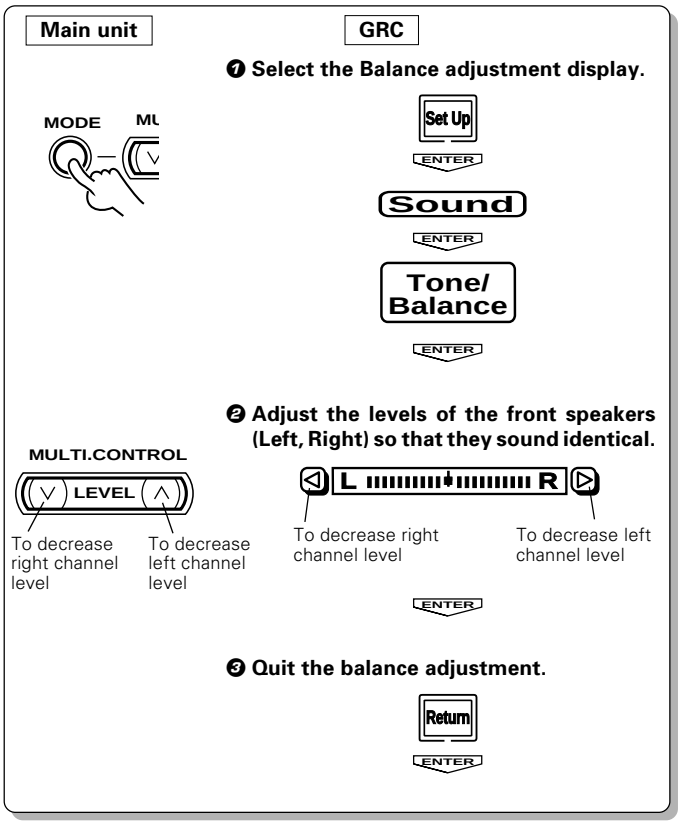
Display	Dolby mode
PRO LOGIC	:Dolby Pro Logic
3 STEREO	:Dolby 3 Stereo
AC-3	:Dolby Digital (AC-3)

GRC



Select an icon.
(The displayed icons may be variable depending on the model.)

2 Adjust the balance. "L- - - - - -R"

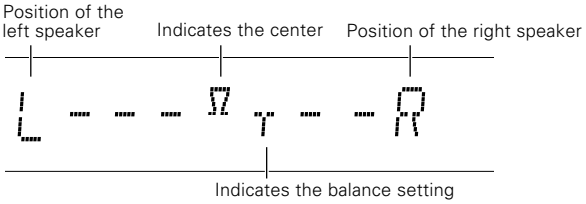


Main unit

Each press switches the adjusted items as shown below.

① **BASS** :Tone, Bass
② **TREBLE** :Tone, Treble
③ **L- - - - - -R** :Balance
④ **C ch** :Center speaker
⑤ **SR ch** :Surround speaker, Right
⑥ **SL ch** :Surround speaker, Left
⑦ **SW ch** :Subwoofer
⑧ **DELAY** :Delay time
⑨ **INPUT** :Input level

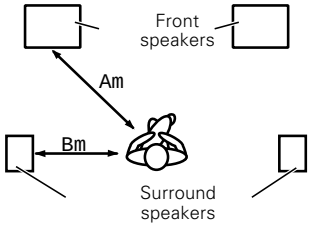
- Adjustment items ⑤, ⑥ and ⑧ are not required in the 3 STEREO mode.
- The adjusted items which can be selected with 6ch INPUT are ③, ④, ⑤, ⑥ and ⑦, in this sequence.
- Those which can be selected when SOURCE DIRECT is ON are ⑦ and ⑨.



If no key on the main unit has been pressed for about 5 seconds, the display on the main unit disappears and it returns to the status before the setup mode was entered.
The display on the GRC disappears if no key on the GRC has been pressed for about 10 seconds.

How to calculate the proper delay time

Assuming that the distance from the front speakers is A meters and that from the surround speakers is B meters:

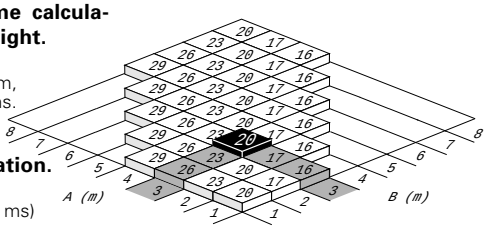


① **Use the delay time calculation chart on the right.**

Example:
When A = 3 m,B = 3 m, the delay time is 20 ms.

② **Use the following formula for calculation.**

Delay time =
20 + 3 × (A - B) (Unit: ms)



What is delay time?

The sound entering the ears include the direct sound coming from the sound source and the indirect sounds reflected from the walls, floor, ceiling, etc. The indirect sounds are delayed because they travel longer distance required for reflection before they reach the ears. The delay time is the difference in time between the direct sound and indirect sounds.

3 Adjust the level from each speaker. "Test Tone"

Main unit **GRC**

(Remote control only)

❶ **Output the "Test Tone".**

Test Tone → ENTER → Test Tone → ENTER

❷ **Adjust the levels of the other speakers than the front speakers (left, right).**

(1) While test tone is output from a speaker,
(2) Adjust the volume level of the speaker.

Channel Level SL+10dB → ENTER

To decrease level / To increase level

❸ **Quit the speaker level adjustment.**

Test Tone → ENTER → Return → ENTER

- The test tone which sounds like noise move across speakers in the following sequence every 1.5 second.

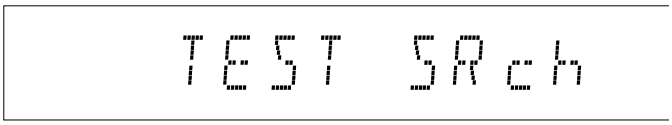
(In Pro Logic or AC-3 mode)

- **TEST Lch** (Front speaker, Left)
- **TEST Cch** (Center speaker)
- **TEST Rch** (Front speaker, Right)
- **TEST SRch** (Surround speaker, Right)
- **TEST SLch** (Surround speaker, Left)
- **TEST SWch** (Subwoofer)

(In 3 STEREO mode)

- **TEST Lch** (Front speaker, Left)
- **TEST Cch** (Center speaker)
- **TEST Rch** (Front speaker, Right)
- **TEST SWch** (Subwoofer)

- The test tons is not output from the speaker which has been set to off.
  Speaker setup → 44



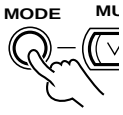
Display when test tone is output from a surround speaker

- Be sure to adjust from the listening position.
- Each press of the key increases or decrease the level by 1 dB.
- The levels of the front speaker (Left, Right) cannot be varied in step 3.

4 Adjust the delay time. "DELAY"

Main unit **GRC**

❶ **Select the Delay Time adjustment display.**



Delay Time → ENTER

❷ **Adjust the Delay Time.**

MULTI.CONTROL
LEVEL

To decrease / To increase

Delay Time 20msec

To decrease / To increase

→ ENTER

❸ **Quit the delay time adjustment.**

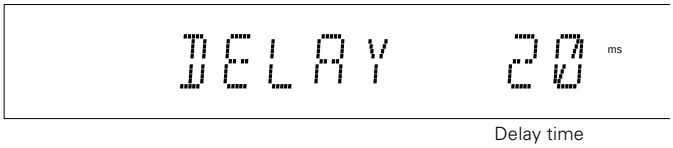
Return → ENTER

Main unit

Each press switches the adjustment items as shown below.

- ① **BASS** :Tone, Bass
- ② **TREBLE** :Tone, Treble
- ③ **L- - - - - -R** :Balance
- ④ **C ch** :Center speaker
- ⑤ **SR ch** :Surround speaker, Right
- ⑥ **SL ch** :Surround speaker, Left
- ⑦ **SW ch** :Subwoofer
- ⑧ **DELAY** :Delay time
- ⑨ **INPUT** :Input level

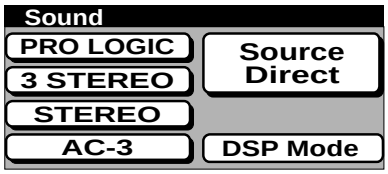
- Adjustment items ⑤, ⑥ and ⑧ are not required in the 3 STEREO mode.
- Find the optimum delay time for the listening room by referring to "How to calculate the delay time".
- The delay time in the PRO LOGIC mode can be adjusted between 15 and 30 ms.
- The delay time in the AC-3 mode is automatically decreased by 15 ms from that set in the PRO LOGIC mode.
- Select the closest value to the value obtained by "How to calculate the delay time".



Delay time

Dolby Digital (AC-3) can be used when playing DVD or LD software bearing the DOLBY DIGITAL mark and Dolby Digital (AC-3) format digital broadcasts (etc.). Dolby Pro Logic and Dolby 3 Stereo can be used when playing video, DVD, or LD software bearing the DOLBY SURROUND mark. DSP modes can be used with any source except Dolby Digital.
Be sure to complete "Set up for surround play" before using any of these surround modes. →36

Sound may not be reproduced when the input signal and Dolby mode are selected improperly.
How to select the digital input, analog input and Dolby mode. →39



Main operation menu
(The displayed icons are variable depending on the model.)

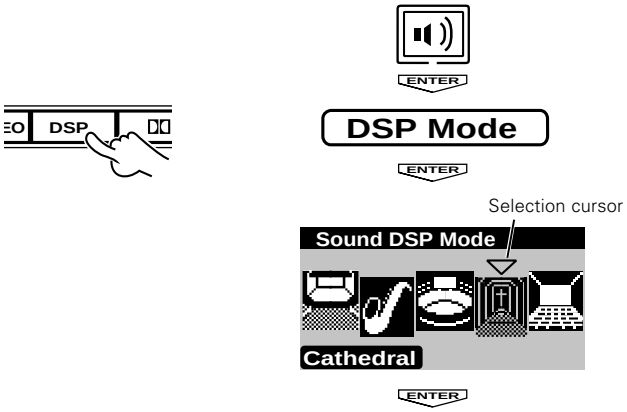
Surround play

1 Select the desired mode.

Main unit **GRC**

Ⓐ **To select a Dolby mode:**

Ⓑ **To select the DSP mode:**



- Switching is not possible when the 6ch INPUT is used.

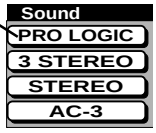
When a Dolby mode is selected:

- Select the Dolby mode according to the software to be played.

Main unit **GRC**

Display	Dolby mode
PRO LOGIC	:Dolby Pro Logic
3 STEREO	:Dolby 3 Stereo
AC-3	:Dolby Digital (AC-3)

❶ Cursor position



❷ Entry — ENTER

When the DSP mode is selected:

- This can be selected when the mode is other than Dolby Digital.

Main unit

Each press of the **DSP** key switches the sound fields as shown below.

① **ARENA** :A lively feeling as felt in the frontmost seat in a concert arena.
② **JAZZ CLUB** :Sound field of a jazz live house where cymbals sound sharply.
③ **STADIUM** :A free feeling with little reverberation reflected from the ceiling.
④ **CATHEDRAL** :A sound field like in a church.
⑤ **THEATER** :A lively sound field like in a theater.

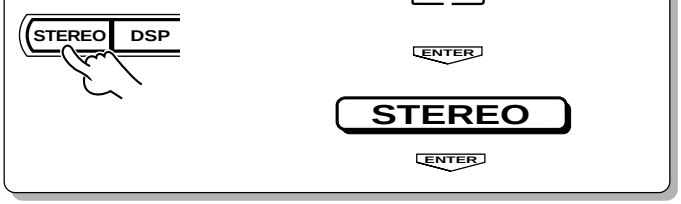
- Sound parameter adjustments in DSP mode →46

2 Play video software.

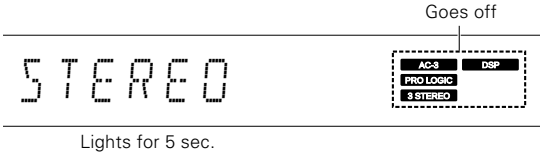
3 Adjust the sound level.

To end surround play

Main unit **GRC**

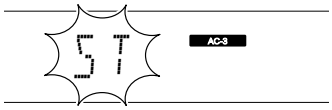


When the source is other than Dolby Digital (AC-3)



Lights for 5 sec.

During playback of Dolby Digital (AC-3) compatible software



Manufactured under license from Dolby Laboratories Licensing Corporation.
"Dolby","AC-3","Pro Logic"and the double-D symbol are trademarks of Dolby Laboratories Licensing Corporation.
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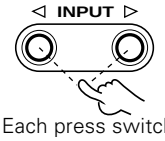
Surround play of LD or DVD

INPUT selector operation

Main unit



Each press switches the indication.

- ① **VCR**
- ② **AUX**
- ③ **TAPE 1 / MD**
- ④ **TUNER (frequency display)**
- ⑤ **CD**
- ⑥ **DVD-D**
- ⑦ **DVD-A / 6ch INPUT**
- ⑧ **LD -D**
- ⑨ **LD -A**
- ⑩ **CABLE / SAT**

DVD-D : DVD Digital
DVD-A : DVD Analogue

GRC (Operation 1)

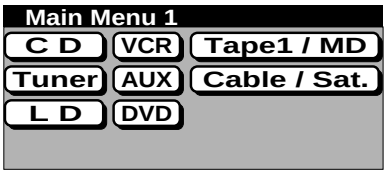
Each press switches the indication.

- ① **VCR**
- ② **AUX**
- ③ **TAPE 1 / MD**
- ④ **TUNER (frequency display)**
- ⑤ **CD**
- ⑥ **DVD-D**
- ⑦ **DVD-A / 6ch INPUT**
- ⑧ **LD -D**
- ⑨ **LD -A**
- ⑩ **CABLE / SAT**

LD -D : LD Digital
LD -A : LD Analogue

GRC (Operation 2)

❶ **Select the input source icon.**



❷ **Press the ENTER key.**

ENTER

- With (Operation 2), the Digital and Analog can be switched every time the **ENTER** key is pressed after selecting "DVD" or "LD".

Dolby mode selection

Surround play of digital input

INPUT selector	**DVD-D**		**LD -D**	
AC-3 AUDIO INPUT (Rear panel)	**DIGITAL INPUT**		**DIGITAL INPUT**	
Input signal	**Dolby Digital (AC-3)**	**PCM**	**Dolby Digital (AC-3)**	**PCM**
Dolby mode (display) *1	**AC-3 (Dolby Digital)**	① **PRO LOGIC** ② **3 STEROE** **(DSP)**	**AC-3 (Dolby Digital)**	① **PRO LOGIC** ② **3 STEROE** **(DSP)**

Surround play of analog input

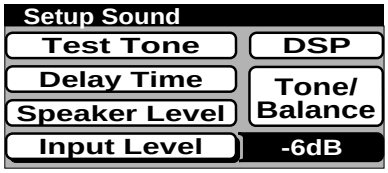
INPUT selector	**DVD-A**	**LD -A**
CONNECTION (Rear panel)	**DVD (FRONT L/R)**	**LD (L/R)**
Input signal	**Analogue**	**Analogue**
Dolby mode (display) *1	① **PRO LOGIC** ② **3 STEROE** **(DSP)**	

- *1: The possible selections may be limited depending on the played source and speaker setting.

The setup for surround play can also be performed by listening to actual music instead of the test tone.
Use the following procedure to adjust surround play while listening to music.

Preparations

- Select the Dolby mode according to the played source and component in use. → 39
- Play video software marked DOLBY DIGITAL or DOLBY SURROUND.

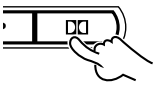


Main operation menu
(The displayed icons are variable depending on the model.)

Setup for surround play *(while listening to music)*

1 Select the Dolby mode.

Main unit



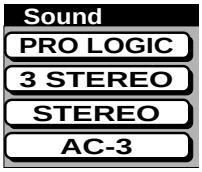
GRC

- Switching is not possible when the 6ch INPUT is used.

Main unit

Display Dolby mode
PRO LOGIC :Dolby Pro Logic
3 STEREO :Dolby 3 Stereo
AC-3 :Dolby Digital (AC-3)

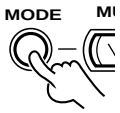
GRC



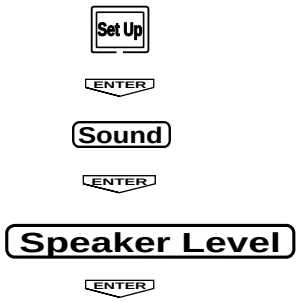
Select an icon.
(The displayed icons may be variable depending on the model.)

2 Adjust the adjustment item.

Main unit



GRC



If no key on the main unit has been pressed for about 5 seconds, the display on the main unit disappears and it returns to the status before the setup mode was entered.

The display on the GRC disappears if no key on the GRC has been pressed for about 10 seconds.

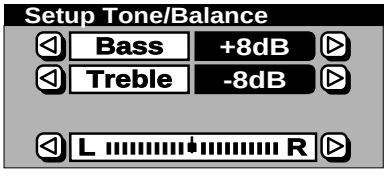
Main unit

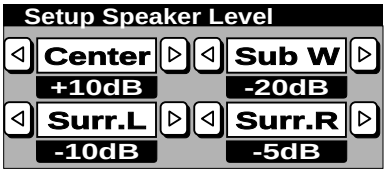
Each press switches the adjustment items as shown below.

- **3 BASS** :Tone, Bass
- **4 TREBLE** :Tone, Treble
- **5 L- - - - - - -R** :Balance
- **6 C ch** :Center speaker
- **7 SR ch** :Surround speaker, Right
- **8 SL ch** :Surround speaker, Left
- **9 SW ch** :Subwoofer
- **10 DELAY** :Delay time
- **11 INPUT** :Input level

- Adjustment items 7, 8 and 10 are not required in the 3 STEREO mode.

GRC





Note

- With the GRC, the adjustment items shown in a single menu can be adjusted at once. (The adjustment steps 3, 4 and 5 or steps 6, 7, 8 and 9 are provided in a single menu so they can be adjusted successively without changing the menu screen.)

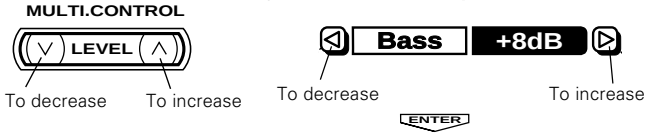
3 Adjust the Bass tone level. "BASS"

Main unit **GRC**

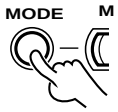
❶ **Confirm the display.**

(Select icon as required.)

❷ **Adjust the level as required.**



❸ **Go to adjustment step"4".**



Select the step "4" icon.

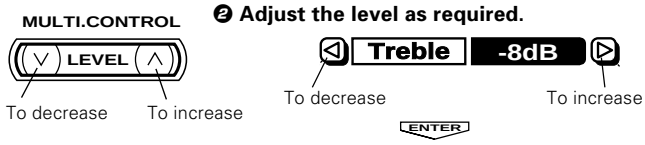
4 Adjust the Treble tone level. "TREBLE"

Main unit **GRC**

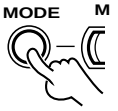
❶ **Confirm the display.**

(Select icon as required.)

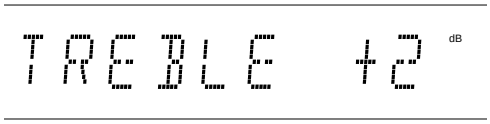
❷ **Adjust the level as required.**



❸ **Go to adjustment step "5".**



Select the step "5" icon.



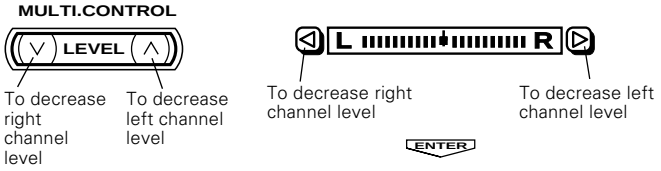
5 Adjust the balance. "L- - - - - -R"

Main unit **GRC**

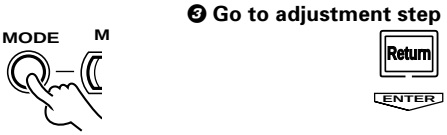
❶ **Confirm the display.**

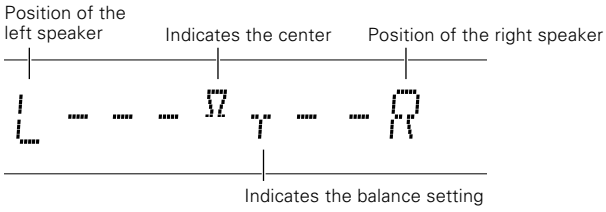
(Select icon as required.)

❷ **Adjust the levels of the front speakers (Left, Right) so that they sound identical.**



❸ **Go to adjustment step "6".**





6 Adjust the center speaker level. "Cch"

Main unit **GRC**

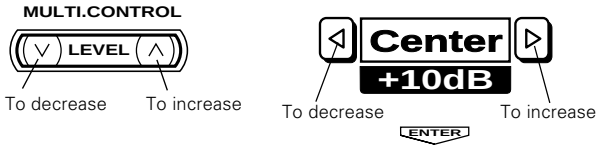
❶ Confirm the display.

(Select icon as required.)

Speaker Level

ENTER

❷ Adjust the level as required.



❸ Go to adjustment step "7".

Select the step "7"icon.

Cch +2 dB

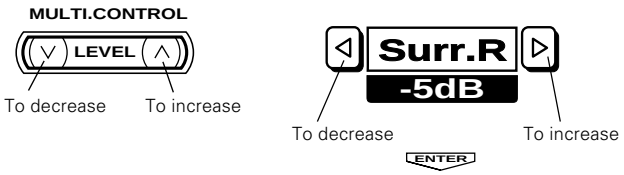
7 Adjust the right surround speaker level. "SRch"

Main unit **GRC**

❶ Confirm the display.

(Select icon as required.)

❷ Adjust the level as required.



❸ Go to adjustment step "8".

Select the step "8" icon.

SRch +1 dB

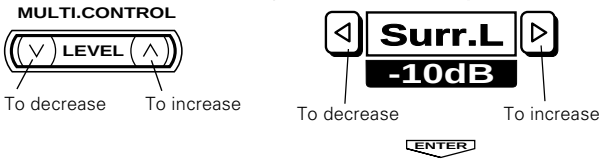
8 Adjust the left surround speaker level. "SLch"

Main unit **GRC**

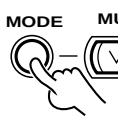
❶ Confirm the display.

(Select icon as required.)

❷ Adjust the level as required.



❸ Go to adjustment step "9".



Select the step "9" icon.

SLch +1 dB

9 Adjust the subwoofer level. "SWch"

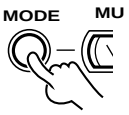
Main unit **GRC**

❶ Confirm the Subwoofer adjustment display.

(Select icon as required.)

❷ Adjust the level as required.

❸ Go to adjustment step "10".



To skip an adjustment item

Main unit

- When an adjustment item is not required to be adjusted, press the **MODE** key to go to the next adjustment step.

GRC

- Select only the icons of the adjustment items which require adjustment.

- The level can be adjusted between -20 and +10 dB in steps of 1 dB.

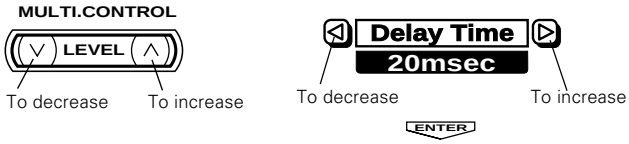
10 Adjust the delay time. "DELAY"

Main unit **GRC**

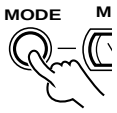
❶ Confirm the display.

(Select icon as required.)

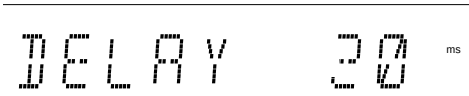
❷ Adjust the delay time.



❸ Go to adjustment step "11".



- Find the optimum delay time for the listening room by referring to "How to calculate the delay time". →37
- The delay time in the PRO LOGIC mode can be adjusted between 15 and 30 ms.
- The delay time in the AC-3 mode is automatically decreased by 15 ms from that set in the PRO LOGIC mode.
- Select the closest value to the value obtained by "How to calculate the delay time".



Delay time

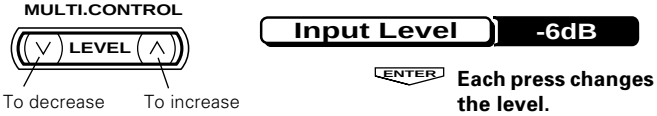
11 Adjust the input level. "INPUT"

Main unit **GRC**

❶ Confirm the display.

(Select icon as required.)

❷ Set the input level.



Each press changes the level.

If the **OVER LEVEL** indicator lights with analog input, set the input level to -6 dB to avoid sound distortion.

- The input level can be set to -6 dB or 0 dB.
- This adjustment is not available with 6ch INPUT.

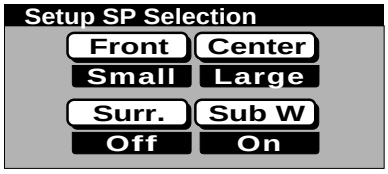
To quit the setup operation:

GRC

- If no key on the main unit has been pressed for about 5 seconds, the display on the main unit disappears and it returns to the status before the setup mode was entered.
- The display on the GRC disappears if no key on the GRC has been pressed for about 10 seconds.

Setup of other speakers than those used by system SERIES 21

The following setup operation is not required if the speakers provided with KENWOOD system SERIES 21 are used.
The following procedure is necessary when other speakers than those provided with system SERIES 21 or used or when you do not want to output sound from speakers.
After "Setup of the speaker sizes and speaker ON/OFF", execute the "Setup for surround play" (→36) again.



Main operation menu
(The displayed icons are variable depending on the model.)

Setup of the speaker sizes and speaker ON/OFF

1 Select the speaker setup mode.

Main unit

Press and hold for more than 2 sec.

GRC

Main unit

Procedure :Press and hold the **MODE** key for more than 2 seconds. Press the **MULTI. CONTROL LEVEL UP** key repeatedly to switch the setup contents as shown below.

- **2 Subwoofer ON/OFF setup**
- **3 Front speaker size setup**
- **4 Center speaker size setup**
- **5 Surround speaker size setup**

Press the **MODE** key to abort setup in the middle.

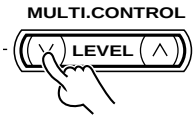
2 Set up the subwoofer. "SW"

Main unit

GRC

❶ Select ON or OFF.

(Press the Down key)



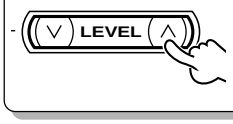
(Select icons.)

Each press changes the setup.

❷ Go to adjustment step "3".

(Press the Up key)

Select the step "3" icon.



Main unit

Each press of the **MULTI. CONTROL LEVEL DOWN** key switches the Sub Woofer ON and OFF.

GRC

Each press of the **ENTER** key switches the Subwoofer as shown below.

- **SW OFF** :Subwoofer Off
- **SW ON** :Subwoofer On

● When "SW" is set to OFF, "F" is automatically set to "LARGE".

3 Set the front speaker size. "F"

Main unit

GRC

❶ Select LARGE or SMALL.

(Press the Down key)

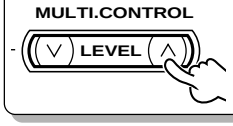
(Select icons.)

Each press changes the setup.

❷ Go to adjustment step "4".

(Press the Up key)

Select the step "4" icon.



Main unit

Each press of the **MULTI. CONTROL LEVEL DOWN** key switches the Front speaker size.

GRC

Each press of the **ENTER** key switches the Front speakers as shown below.

- **F LARGE** :Setup for large-sized front speakers
- **F SMALL** :Setup for small-sized front speakers

● When "SW" is set to ON and "F" is set to SMALL, "C" and "S" are set automatically SMALL even if they have been set to LARGE.

4 Set the center speaker size."C"

Main unit **GRC**

❶ Select LARGE, SMALL or OFF.

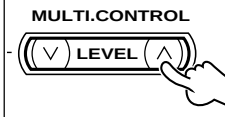
(Press the Down key)

(Select icons.)

Each press changes the setup.

❷ Go to adjustment step "5".

(Press the Up key)



Select the step "5" icon.

Main unit

Each press of the **MULTI. CONTROL LEVEL DOWN** key switches the Center speaker size.

GRC

Each press of the **ENTER** key switches the Center speaker size as shown below.

① **C LARGE** : Setup for large-sized center speaker
② **C OFF** : Setup for not using the center speaker
③ **C SMALL** : Setup for small-sized center speaker

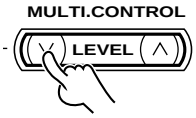
- When "SW" is set to ON and "F" is set to SMALL, "C" and "S" can be set only to SMALL or OFF.

5 Set the surround speaker size."S"

Main unit **GRC**

❶ Select LARGE, SMALL or OFF.

(Press the Down key)

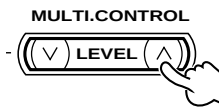


(Select icons.)

Each press changes the setup.

❷ Go to adjustment step "2".

(Press the Up key)



Select the step "2" icon.

Main unit

Each press of the **MULTI. CONTROL LEVEL DOWN** key switches the Surround speaker size.

GRC

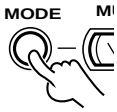
Each press of the **ENTER** key switches the Surround speakers size as shown below.

① **S LARGE** : Setup for large-sized surround speakers
② **S OFF** : Setup for not using the surround speaker
③ **S SMALL** : Setup for small-sized surround speakers

- When "SW" is set to ON and "F" is set to SMALL, "C" and "S" can be set only to SMALL or OFF.

To quit the setup operation:

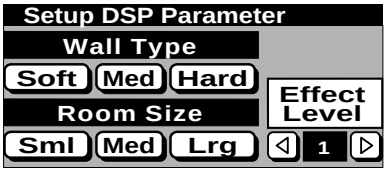
Main unit **GRC**



- The display on the GRC disappears if no key on the GRC has been pressed for about 10 seconds.

Notes for surround play

When the surround speakers are set to OFF in the middle of Dolby Pro Logic mode, this is automatically switched to the Dolby 3 STEREO mode.
When the center speaker is set to OFF in the middle of 3 STEREO mode, this is automatically switched to the normal STEREO mode.



Main operation menu
(The displayed icons are variable depending on the model.)

Setup of the surround effect parameters *(DSP)*

1 Select the DSP surround mode.

Main unit

GRC

❶ **Select DSP.**

- This can be selected when the input signal is other than Dolby Digital (AC-3).

Main unit

Each press switches the indication.

- ① **ARENA**
- ② **JAZZ CLUB**
- ③ **STADIUM**
- ④ **CATHEDRAL**
- ⑤ **THEATER**

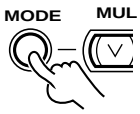
GRC

❶ Selection cursor

❷ Entry — ENTER

2 Select the adjustment parameter.

Main unit



GRC

❶ **Display the setup screen.**

To quit the setup mode in the middle:
If no key has been pressed for about 5 seconds, the setup display disappears and the display returns to the status before the setup mode was entered.
(Main unit display)

- The effects of adjustments are applied equally to sound fields ① to ⑤.
- Switching is not possible when the 6ch INPUT is used.

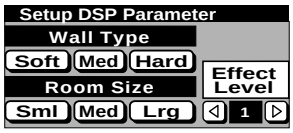
Main unit

Each press switches the adjustment parameters.

- **3 EFFECT**
- **4 WALL**
- **5 ROOM**
- **6 BASS**
- **7 TREBLE**
- **8 L- - - - - - -R**
- **9 Cch**
- **10 SRch**
- **11 SLch**
- **12 SWch**
- **13 INPUT**

GRC

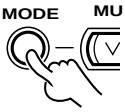
Select an adjustment parameter icon by moving the cursor.



- Setup/adjustment operations **6** to **13** are to be performed only when required.

3 Adjust the effect level. "EFFECT"

Main unit

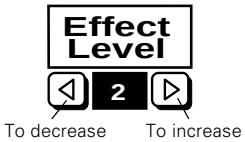


Go to adjustment step"**4**".

GRC

❶ **Confirm the "EFFECT" Level adjustment display.**
Select icon as required.

❷ **Adjust the level as required.**



❸ **Enter the setup.**

ENTER

Select the step "**4**" icon.

- The EFFECT level can be adjusted between 1 and 5.

4 Set the WALL type. "WALL"

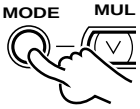
Main unit **GRC**

❶ Confirm "WALL" adjustment display.

❷ Select the type.

To move toward the left. To move toward the right.

❸ Enter the setup.



Select the step "5" icon.

Go to adjustment step "5".

Main unit

- Each press of the key switches the type setup as shown below.

S ◄► M ◄► H
(SOFT) (MEDIUM) (HARD)

5 Set the ROOM size. "ROOM"

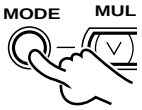
Main unit **GRC**

❶ Confirm "ROOM" adjustment display.

❷ Select the size.

To move toward the left. To move toward the right.

❸ Enter the setup.



Go to adjustment step "6".

Main unit

- Each press of the key switches the size setup as shown below.

S ◄► M ◄► L
(SMALL) (MEDIUM) (LARGE)

To quit the setup mode in the middle:
If no key has been pressed for about 5 seconds, the setup display disappears and the display returns to the status before the setup mode was entered.

- Setup/adjustment operations 6 to 13 are to be performed only when required.
  The operations are identical to those in "Setup for surround play (while listening to music)". ➞ 40

To return the GRC display to the Main Menu:

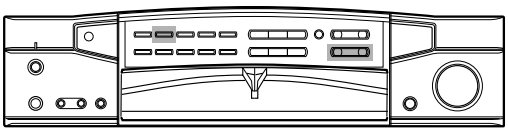
GRC

- If no key on the main unit has been pressed for about 5 seconds, the display on the main unit disappears and it returns to the status before the setup mode was entered.
- The display on the GRC disappears if no key on the GRC has been pressed for about 10 seconds.

Clock adjustment

This unit incorporates a clock function. Be sure to adjust the correct time before using the timer function.

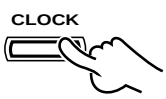
The time display blinks after a power failure or when the power cord has been unplugged from the AC outlet and plugged in again. In such a case, adjust the clock again.



: Keys or controls to be used in this operation

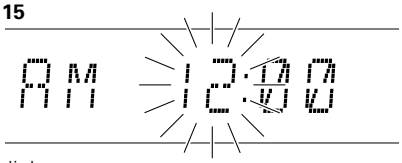
1 Activate the clock adjustment mode.

Main unit



❶ **Press the CLOCK key.**

Example: Adjustment to 8:15

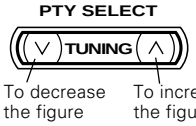


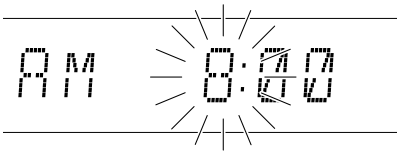
- The time display starts to blink.

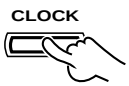
2 Enter the hour.

Main unit

❶







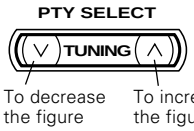
❷ **Press the CLOCK key.**

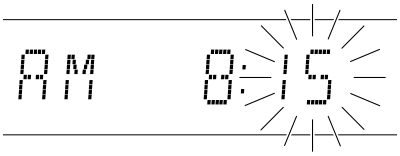
- The time is represented in 12-hour AM/PM method.
- Press the **CLOCK** key. The hour is entered and the minute display starts to blink.

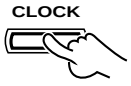
3 Enter the minute.

Main unit

❶





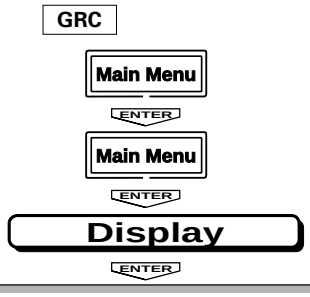


❷ **Press the CLOCK key.**

- If you make a mistake, restart from the beginning.
- To adjust correct time, press the **CLOCK** key at the same moment as a time announcement.

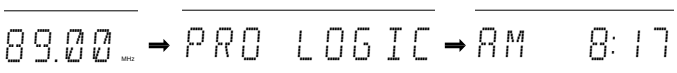
Displaying the Time

The displayed information can be switched every time the Display icon is selected.



Each press switches the indication.

① **Input selection display**
② **DOLBY/DSP/STEREO display**
③ **Clock display (about 5 seconds)**



Timer operation

Two 24-hour timer systems (TIMER 1, TIMER 2) (which can be used every day) and a sleep timer system (which works only once) are available.
In each of TIMER 1 and TIMER 2, the timer data including the operating period and played contents can be set and selected to be activated or not as required.

Timer reservation is possible for the two types TIMER 1 and TIMER 2 at the same time.

- Please make reservations with an interval of at least one minute, so that the operation times of TIMER 1 and TIMER 2 do not overlap.

Timer playback, timer recording (TIMER 1, TIMER 2)

With each of the two timer programs, a selected source can be played (or radio broadcast can be recorded) in the previously set time period.

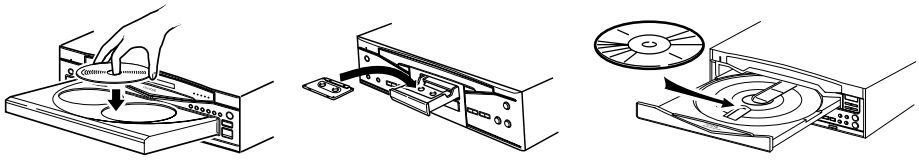
Sleep timer

The unit is put to STANDBY mode automatically after the specified period has elapsed. →52

Timer programming

1 Make preparations for the play (recording).

● To listen to radio	● To listen to CD	● To listen to tape	● To listen to LD	● For broadcast recordings
The station should be preset before timer programming. →28 →29	**Insert a disc.** (Program playback is not possible.)	**Insert a tape.**	**Insert a disc.** (Program playback is not possible.)	**Make preparations for recording.** →25

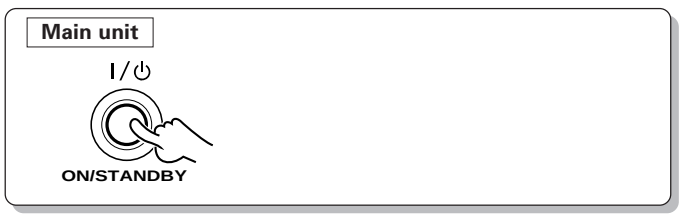


If tapes are inserted in both decks A and B, playback starts with the tape in deck B.

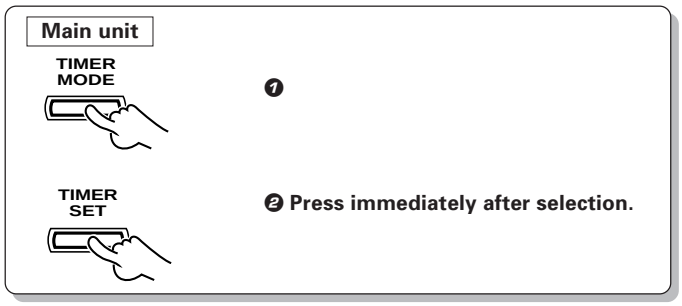
2 Adjust the listening volume.

- The **VOLUME CONTROL** should be set to the desired volume while the unit is ON.

3 Set the I / ⏻ (ON/STANDBY) switch to STANDBY.

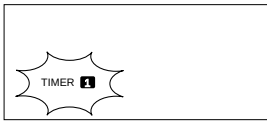


4 Select a TIMER No.



Each press of the key switches the **TIMER** numbers as follows.

→ ① **TIMER 1**
② **TIMER 2**
③ **TIMER 1,2**
④ **OFF**



- The selected TIMER No. lights.
- If a previously programmed TIMER No. is selected, the contents will be replaced by the new contents programmed.
- The timer programming operation is not possible when TIMER 1,2 have already been selected.

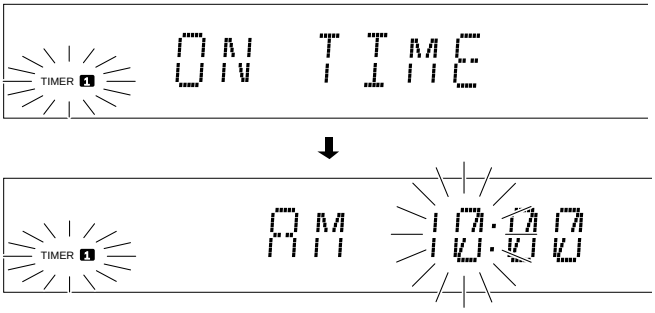
5 Enter the ON time (Hour).

Main unit

PTY SELECT ❶

TUNING (∨ To decrease the figure / ∧ To increase the figure)

TIMER SET ❷



- If you make a mistake, restart from step 4 .

6 Enter the On time (Minute).

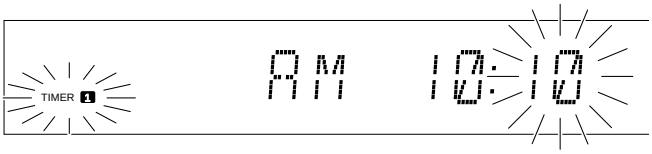
Main unit

PTY SELECT ❶

TUNING (∨ To decrease the figure / ∧ To increase the figure)

TIMER SET ❷

- After entering the figure of "hour" with the procedure in step 5, enter the figure of "minute" using the same procedure.



- If you make a mistake, restart from step 4 .

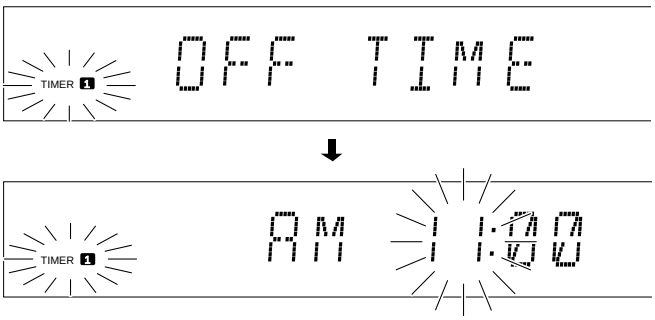
7 Enter the OFF time (Hour).

Main unit

PTY SELECT ❶

TUNING (∨ To decrease the figure / ∧ To increase the figure)

TIMER SET ❷



- If you make a mistake, restart from step 4 .

8 Enter the OFF time (Minute).

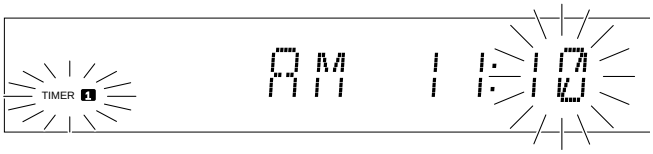
Main unit

PTY SELECT ❶

TUNING (∨ To decrease the figure / ∧ To increase the figure)

TIMER SET ❷

- After entering the figure of "hour" with the procedure in step 7, enter the figure of "minute" using the same procedure.



- If you make a mistake, restart from step 4 .

9 Make the desired reservation.

For timer playback

Main unit

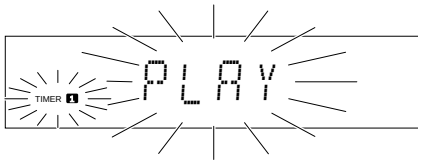
❶ Select the mode.

PTY SELECT
TUNING (Down / Up)

Select "PLAY"
(Each press alternates them.)
→ PLAY : At the ON time, playback starts.
→ REC

TIMER SET

Enter it.



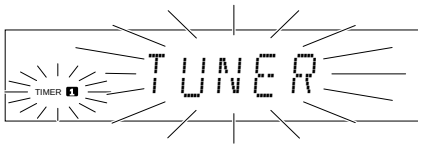
❷ Select the input source.

PTY SELECT
TUNING (Down / Up)

Select the source to be played.
(Each press switches the following).
→ **TUNER**
CD
LD -D
LD -A
TAPE1 / MD
DVD-D
DVD-A / 6ch INPUT

TIMER SET

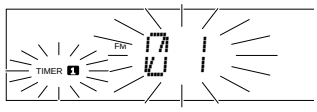
Enter it.



❸ Select the broadcast station (only when TUNER is selected above).

PTY SELECT
TUNING (Down / Up)

Select the preset station No.



TIMER SET

Enter it.

- The station to be received with timer must be preset beforehand. → 28 → 29

Timer recording of broadcasts

Main unit

❶ Select the mode.

PTY SELECT
TUNING (Down / Up)

Select "REC".
(Each press alternates them.)
→ PLAY
→ REC

TIMER SET

Enter it.

❷ Select the broadcast station.

Select the preset station No.

PTY SELECT
TUNING (Down / Up)

TIMER SET

Enter it.

Activating the timer

1 Select the TIMER No.to be used.

Main unit

TIMER MODE

Each press of the key switches the **TIMER** numbers as follows.
→ ① **TIMER 1** ..... Execution of timer 1 only.
② **TIMER 2** ..... Execution of timer 2 only.
③ **TIMER 1, 2** .. Execution of timers 1 and 2.
④ TIMER OFF

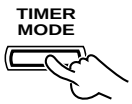
- The selected TIMER No. lights.
- The timer will not function unless a TIMER No. is selected.

The reservation contents cannot be cleared. The contents are cleared only when they are changed.

Check the reservation content.

Main unit

Select the TIMER number to be checked.



Each press of the key switches the **TIMER** numbers as follows.

- ① **TIMER 1** (Contents of the timer 1 are displayed.)
- ② **TIMER 2** (Contents of the timer 2 are displayed.)
- ③ **TIMER 1, 2** (Contents of the timer 1 and timer 2 are displayed.)
- ④ TIMER OFF

● The reserved contents will be displayed for 2 seconds per item. After this, the previous display content appears again.

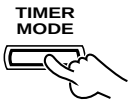
To change the reserved contents

Restart the procedure of "Timer programming" from the beginning.

When timer operation is not required

Main unit

Press so that all TIMER No. indicators are OFF.



Each press of the key switches the **TIMER** numbers as follows.

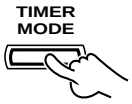
- ① **TIMER 1** (Only the timer 1 is carried out.)
- ② **TIMER 2** (Only the timer 2 is carried out.)
- ③ **TIMER 1,2** (Both timers 1 and 2 are carried out.)
- ④ TIMER OFF (No timer operation is carried out.)

● The reservation contents are held in memory.

To set the same timer program again

Main unit

Press so that the desired TIMER No. indicators light.



Each press of the key switches the **TIMER** numbers as follows.

- ① **TIMER 1** (Only the timer 1 is carried out.)
- ② **TIMER 2** (Only the timer 2 is carried out.)
- ③ **TIMER 1,2** (Both timers 1 and 2 are carried out.)
- ④ TIMER OFF (No timer operation is carried out.)

● Also prepare the disc or tape and adjust the listening volume.

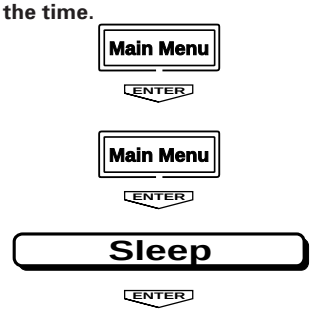
Sleep timer

Setting the number of minutes until the unit is put to standby mode.

Main unit GRC

❶ **Switch the unit from STANDBY mode to ON mode.**

❷ **Set the time.**

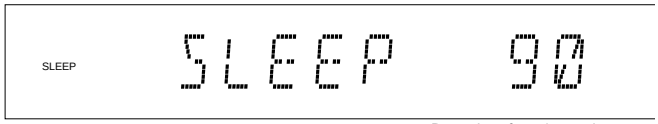


● This unit is turned STANDBY automatically after the set time has elapsed.
● The remaining sleep time can be displayed by selecting the Sleep icon while the SLEEP indicator is lit.

● Each press decreases the time by 10 minutes. The maximum time that can be set is 90 minutes.

90→80→70...30→20→10→Cancel→90→80...

Lights up.



Duration for sleep timer.

To cancel

Turn STANDBY or select "Sleep" icon repeatedly until the sleep time is cancelled.

VCR Set up codes

Maker	Set up codes
AIWA	015,322,367
AKAI	056,121,330
AKIBA	087
ALBA	035,224,293,310,367
AMBASSADOR	035
AMSTRAD	015,340,347
ANITECH	087
ASA	052,096
ASUKA	052
BAIRD	015,056,119,122
BASIC LINE	035,087,293
BLAUPUNKT	021,049,177,210,241
BRANDT	202,335
BRANDT ELECTRONIQUE	056
BUSH	087,224,293,367
CATRON	035
CGE	015
CIMLINE	087
CLATRONIC	035
COMBITECH	367
CONDOR	035
CROWN	035,087,293
DAEWOO	035,293
DANSAI	087
DE GRAAF	057
DECCA	015,096
DUAL	056
DUMONT	015,096,119
ELCATECH	087
ESC	255,293
FERGUSON	056,122,335
FIDELITY	015
FINLANDIA	096,119
FINLUX	015,057,096,119
FIRSTLINE	052,058,060,087,224
FISHER	061,119
FRONTECH	035
FUNAI	015
GEC	096
GENERAL	035
GOLDSTAR	052
GOODMANS	015,035,052,087,293
GRAETZ	056,119,255
GRANADA	061,096,119
GRANDIN	015,052,087
GRUNDIG	021,022,087,096,210,241,362
HANSEATIC	052
HCM	087
HINARI	087,223,255,367
HITACHI	015,056,057,255

Maker	Set up codes
HYPSON	087
IMPERIAL	015
INTERFUNK	096
ITT	056,061,119,121,255,399
ITV	052,293
JVC	056,082,221,399
KAISUI	087
KENDO	121,224
KENWOOD	056
KORPEL	087
LENCO	293
LEYCO	087
LOEWE	021,052,096
LOGIK	255
LUXOR	058,061,119,121
M-ELECTRONIC	015
MANESTH	060,087
MARANTZ	021,096,310
MATSUI	223,224,310,367
MEMOREX	015,052,061,119
MEMPHIS	087
METZ	021,177,210,362
MINERVA	210
MITSUBISHI	058,082,096
MULTITECH	015,087
MURPHY	015
NEC	056,082
NECKERMANN	096
NESCO	087
NOKIA	056,061,119,121,255
NORDMENDE	056,399
OCEANIC	015,056
OKANO	330
ORION	223,224,310,367
OSAKI	015,052,087
OTTO VERSAND	096
PALLADIUM	021,052,056,087
PANASONIC	177,240,241
PATHE MARCONI	056
PENTAX	057
PERDIO	015
PHILIPS	096,399
PHONOLA	096
PIONEER	082,096
PORTLAND	035
PROFEX	337
PROFITRONIC	255
PROLINE	015
PYE	096
QUARTZ	061

Maker	Set up codes
QUELLE	096
RADIOLA	096
REX	056,399
ROADSTAR	052,087,255,293
SABA	056,221,335,399
SAISHO	223,224
SALORA	058,061,121
SAMSUNG	255,447
SANSUI	056,082
SANYO	061,119
SAVILLE	367
SBR	096
SCHAUB LORENZ	015,056
SCHNEIDER	015,087,096
SEG	255,337
SEI	096
SELECO	056
SENTRA	035
SHARP	063
SHINTOM	087,119
SIEMENS	021,052,119,210
SILVA	052
SINGER	060
SINUDYNE	096
SOLAVOX	035
SONTEC	052
SONY	047,048,049
SUNSTAR	015
SUNTRONIC	015
TASHIKO	015
TATUNG	015,056,096
TEC	035
TECHNICS	177
TELEAVIA	056
TELEFUNKEN	056,202,335,399
TENOSAL	087
TENSAI	015,337
THOMSON	056,335,399
THORN	056,119
TOSHIBA	056,058,060,096,399
TOWADA	337
TRIUMPH	223
UHER	255
UNIVERSUM	015,021,052,096,121,210,255,340
YAMISHI	087
YOKAN	087
YOKO	035,255

6 TV Set up codes

Maker	Set up codes
ACURA	024
ADMIRAL	102,178
ADYSON	232
AGB	531
AKAI	223,366,376
AKURA	233
ALBA	024,052,233,250
ALLORGAN	309
AMPLIVISION	232
AMSTRAD	024,192,386,531
ANITECH	024
ARC EN CIEL	516
ARCAM	231,232
ASA	102,119
ASUKA	233
AUDIOSONIC	052,124
AUTOVOX	102
BAIRD	358
BANG&OLUFSEN	102
BASIC LINE	024,233
BAUR	025,052,376,520,569
BEKO	385
BEON	052
BINATONE	232
BLAUPUNKT	206,342,343,569
BLUE SKY	233
BLUE STAR	297
BONDSTEC	262
BOOTS	232
BPL	297
BRANDT	124,211,348,350
BRANDT ELECTRONIC	516
BRIONVEGA	102
BRITANNIA	231
BRUNS	102
BSR	309
BTC	233
BUSH	024,051,052,233,297,370,386,389,539,558,567
CARREFOUR	051
CASCADE	024
CATHAY	052
CENTURION	052
CENTURY	102
CGE	262,567
CIMLINE	024
CLARIVOX	052
CLATRONIC	262,385
CONDOR	335,385

Maker	Set up codes
CONTEC	024,051,231
CONTINENTAL EDISON	211,348,414,516
CROSLEY	102
CROWN	024,385,433
CRYSTAL	446
CS ELECTRONICS	231
CTC	262
CYBERTRON	233
DAEWOO	024,052,389
DAINICHI	233
DANSAI	052
DAYTON	024
DE GRAAF	223,558
DECCA	052,087,264,531
DIXI	024,052
DUAL	367
DUAL TEC	232
DUMONT	085,102
ELBE	274
ELIN	052
ELITE	233,335
ELTA	024
EMERSON	102,376
ERRES	027,052
EUROPHON	531
FERGUSON	052,088,124,302,350,358
FIDELITY	231
FINLANDIA	223,361,374
FINLUX	052,085,087,102,119,120,361,426,531
FIRSTLINE	024,231,232,262,309,336
FISHER	119,223,232,385
FLINT	470
FORMENTI	052,102,335,567
FRONTECH	178,262,279,446,558
FUJITSU	087
FUNAI	279,309
GBC	567
GEC	052,058,087,232,531,572
GELOSO	024
GENEXXA	178,233
GOLDSTAR	052,124,232,558
GOODMANS	051,052,087,250,358,386,389
GENEXXA	178,233
GORENJE	385
GPM	233
GRAETZ	178,362,376,572
GRANADA	052,087,223,232,366,374,531,558
GRANDIN	297

Maker	Set up codes
GRUNDIG	085,206,569
HANSEATIC	052,335,376,443
HANTAREX	531
HCM	024,297
HIFIVOX	516
HINARI	024,051,052,233
HISAWA	297,470
HITACHI	051,058,059,120,124,178,211,232,240,362,371,558,572
HUANYU	231,389
HYPSON	052,279,297
ICE	232,279,386
IMPERIAL	262,385,433,539,567
INDIANA	052
INGELEN	178,572
INNO HIT	087,531
INTERFUNK	052,178,262,376,516,572
INTERVISION	117,232,279
ISUKAI	233
ITC	567
ITS	386
ITT	178,362,366,376,572
JEC	050
JVC	051,068,109
KAISUI	024,231,232,233,297
KAPSCH	178,572
KENNEDY	567
KINGSLEY	231
KNEISSEL	274
KORPEL	052
KORTING	102
KOYODA	024
LEYCO	052,087,279,309
LIESENK&TTER	052
LOEWE	102
LUXOR	371,372,376,558
M ELECTRONIC	024,119,120,178,361,389
M-ELECTRONIC	052,124,232,302
MAGNADYNE	102,117,262,531
MAGNAFON	117,531
MANESTH	232,250,279,335
MARANTZ	052
MARELLI	102
MARK	052
MATSUI	024,026,050,051,052,087,192,250,309,370,386,531,539,558
McMICHAEL	058
MEDIATOR	027,052
MEMOREX	024

TV Set up codes

Maker	Set up codes
MEMPHIS	352
METZ	102,254,382,403,462
MINERVA	085,569
MITSUBISHI	051,102,123,165
MIVAR	231,531
MULTITECH	024,117,231,558
NECKERMANN	052,102,206,520,569
NEI	052,352,446
NIKKAI	050,052,087,231,233,279,352
NOBLIKO	117
NOGAMATIC	516
NOKIA	376
NORDMENDE	124,211,302,358,516
OCEANIC	178,362,376
ORION	052,192,250,309,335, 336,370,531
OSAKI	087,232,233,279
OSO	233
OSUME	087
OTTO VERSAND	051,052,206,232, 335,520,567,569
OTTO-VERSAND	025,358
PALLADIUM	385
PANAMA	232,279
PANASONIC	141,178,241,265,362,382,572
PATHE CINEMA	231,335,567
PATHE MARCONI	211,348,516
PAUSA	024
PERDIO	335
PHILCO	102,262,567
PHILIPS	027,052,058,102,338,389,569
PHOENIX	102
PHONOLA	027,052,102
PIONEER	124,178,302
PRANDONI-PRIN	531
PROFEX	024,376
PROLINE	336
PROTECH	024,052,117,232, 262,279,352,446, 567
PYE	027
QUELLE	025,026,052,085, 119,267,342,343, 376,520,567,569
QUESTA	051
R-LINE	052
RADIOLA	027,052,338
RADIOMARELLI	102,531
RBM	085
RCA	105
REDIFFUSION	376
REX	178,274,279
RFT	102,443
ROADSTAR	024,233,279
SABA	102,124,178,211, 302,350,358,362, 516,572
SAISHO	024,026,192,250,279,531
SALORA	178,371,374,376,558
SAMBERS	117,531
SAMSUNG	024,052,232,279,385
SANDRA	231
SANYO	026,051,087,119,223
SBR	027,052,058
SCHAUB LORENZ	362,376,572
SCHNEIDER	052,233,262,338,367,386,409
SEG	051,232,279,567
SEI	102,117,192,309
SEI-SINUDYNE	025,531
SELECO	178,274,426
SENTRA	050
SHARP	051,108
SHORAI	309
SIAREM	102,117,531
SIEMENS	206,342,343,569
SILVER	051
SINGER	102
SINUDYNE	102,117,192,250,309
SKANTIC	371,372
SOLAVOX	178
SONITRON	223
SONOKO	024,052
SONOLOR	178,223
SONTEC	052
SONY	025,026,051,520
SOUNDWAVE	052
STANDARD	024,232,233
STERN	178,274
SUNKAI	309,336,370
SUSUMU	233
SYSLINE	052
TANDY	087,178,232,233
TASHIKO	051,058,232,558
TATUNG	052,087,232,264,531
TEC	232,262,567
TECHNEMA	335
TECHNICS	265
TELEAVIA	348,358,516
TELEFUNKEN	116,124,267,277,350, 358,486,516
TELEMEISTER	335
TELETECH	024
TELETON	232
TENSAI	233,309,335
THOMSON	124,211,302,348,358,414,516
THORN	050,052,087,119,376,520
THORN-FERGUSON	358
TOMASHI	297
TOSHIBA	050,051,085
TOWADA	567
TRIUMPH	192,531
UHER	335
ULTRAVOX	117,366
UNIVERSUM	052,119,120,279, 361,385,436,567
VESTEL	052
VIDEOSAT	262
VISION	335
VOXSON	102,178
WALTHAM	232,371
WATSON	052,335
WATT RADIO	117,567
WEGA	051,102
WHITE WESTINGHOUSE	052,231,335
YOKO	052,232,279,446

LD Set up codes

Maker	Set up codes
DENON	187
KENWOOD	273
MAGNAVOX	232
MARANTZ	079
PHILIPS	079
PIONEER	074
SALORA	079
SONY	208,216
TELEFUNKEN	074
YAMAHA	232

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Satellite Set up codes

Maker	Set up codes
ALBA	106,269,377,436,470
ALDES	303
ALLANTIDE	348
AMSTRAD	095,228,267,360,476,524
ANKARO	232,235,303,384
ANTTRON	198,436
AST	336
ASTRA	123
ASTRO	188,373
AUDIOTON	379
AXIS	381,384,545
BARCOM	232
BEST	232,384
BLAUPUNKT	188
BRAIN WAVE	347
BUSH	082,106,269
CAMBRIDGE	271,359
CHANNEL MASTER	377
COMMLINK	303
CONNEXIONS	411,473
CONTEC	381
DDC	377
DISKXPRESS	232
DNT	215,411,473
ECHOSTAR	411
ELTA	379
EMANON	436
FERGUSON	082,198,351
FIDELITY	267
FINLUX	123,359,470
FREECOM	350,436
FTE	346
FUBA	187,232,312,313,384,411,436
G-SAT	198
GALAXIS	303,379,381
GALAXISAT	336
GOLDSTAR	350
GROTHUSEN	350
GRUNDIG	188,343
HARTING UND HELLING	348
HINARI	198
HIRSCHMANN	188,348,412,510
HUTH	235,303,361,379
IMPERIAL	269
INTERVISION	607
ITT	123,187
JOHANSSON	347
JSR	379
KATHREIN	107,188,215,346, 373,409,457,519

Maker	Set up codes
KOSMOS	346,350
KREISELMEYER	188
KYOSTAR	436
LENCO	350,436
LUPUS	384
LUXOR	123,187
MANHATTAN	470,607
MARANTZ	215
MASPRO	107,343,351,510
MATSUI	359
MICRO TECHNOLOGY	348
MULTISTAR	346
MURATTO	350
NAVEX	347
NEWHAUS	235
NOKIA	123,187,343,412,470
NORDMENDE	377
ORBITECH	516
OXFORD	359
PACE	082,198,343,351,470
PALCOM	312,313
PANDA	470
PHILIPS	215,343,470
PHOENIX	381
PHONOTREND	303,607
POLYTRON	409
PROMAX	470
PROSAT	303
PTT-TELECOM	228
QUADRAL	377
RADIOLA	215
RADIX	411
RCA	581
RFT	215,235,303
SABA	269,351
SABRE	470
SAKURA	381
SALORA	123,187
SAT	336,476
SATCOM	228,361
SATEC	198,343
SATMASTER	361
SATPARTNER	347,350,436
SCHWAIGER	198,409,519
SEEMANN	411,545
SEG	384,436
SIEMENS	188
SKYMASTER	303
TANTEC	312,313,351,470
TECHNILAND	361

Maker	Set up codes
TECHNISAT	277,473,516
TELEFUNKEN	436
THOMSON	470
TONNA	361
TRIAD	336,348,350
UNISAT	381
UNITOR	232,347
UNIVERSUM	188
VECTOR	348
VENTANA	215
VORTEC	436
VTECH	336
WEVASAT	348
WINERSAT	347
WISI	188,336,411,470
ZEHNDER	336,346

Cable Set up codes

Maker	Set up codes
BRITISH TELECOM	120
CABLETIME	286
DECSAT	438
FILMNET	458
FRANCE TELECOM	466
JERROLD	018
PIONEER	159
PVP STEREO VISUAL MATRIX	018
SALORA	397
SATBOX	390
SCIENTIFIC ATLANTA	023,292
TELE+1	458
UNITED CABLE	018
WESTMINSTER	120

Specifications

⚠ ***Caution : Read this page carefully to ensure safe operation.***

For C-V750

Audio section

Total harmonic distortion (1 kHz, 1V)
..... 0.01 %
Signal to noise ratio (IHF'66)
CD ..... 98 dB
Input sensitivity / impedance
CD ..... 200 mV / 47kΩ
Tone controls
BASS ..... ± 8 dB (at 100 Hz)
TREBLE ..... ± 8 dB (at 10 kHz)
Output level / impedance
TAPE REC ..... 200 mV / 1 kΩ

Video section

VIDEO inputs / outputs
(composite) ..... 1 Vp-p/75 Ω

Digital section

Sampling frequency
..... 32 kHz,44.1 kHz,48 kHz
Digital input
(coaxial) ..... 0.5 Vp-p/75 Ω

FM Tuner section

Tuning frequency range ..... 87.5 MHz~108 MHz
Usable sensitivity (DIN)
MONO ..... 1.2 µV (at 75 Ω) / 13.2 dBf
(40 kHz dev., S/N 26 dB)
STEREO ..... 35 µV (at 75 Ω) / 42 dBf
(46 kHz dev., S/N 46 dB)
Signal to noise ratio (DIN weighted at 1 kHz, 40 kHz dev.)
MONO ..... 65 dB (65.2 dBf input)
STEREO ..... 60 dB (65.2 dBf input)
Selectivity (DIN ± 300 kHz) ..... 64 dB
Stereo separation (DIN, 1 kHz) ..... 36 dB
Frequency response ..... 30 Hz~15 kHz, + 0.5 dB, – 3.0 dB

MW Tuner section

Tuning frequency range ..... 531 kHz ~ 1,602 kHz
Usable sensitivity
(30% mod., S/N 20 dB) ..... 20 µV / (700 µV / m)
Signal to noise ratio
(at 30% mod. 1mV input) ..... 48 dB

LW Tuner section

Tuning frequency range ..... 153 kHz ~ 279 kHz
Usable sensitivity
(30% mod., S/N 20 dB) ..... 35 µV
Signal to noise ratio
(at 30% mod. 1mV input) ..... 45 dB

General

Power consumption ..... 35 W
⚠ **AC outlet**
UN SWITCHED ..... 2: (Total 100 W max)
Dimensions ..... W:400 mm
H:105 mm
D:382 mm
Weight (net) ..... 5.2 kg

Notes

1. KENWOOD follows a policy of continuous advancements in development. For this reason specifications may be changed without notice.
2. Full performance may not be exhibited in extremely cold locations (below 0 deg.C).

In case of difficulty

What appears to be a mulfunction may not always be serious. If your unit should not perform as expected, consult the table below to see if the problem can corrected before seeking help from your dealer or service representative.

How to reset the microcomputer

The microcomputer may malfunction (impossibility of operation, erroneous display, etc.) when the power cord is unplugged and plugged in again while the unit is in ON mode with the I/⏻ key pressed or due to other external causes. In this case, execute the procedure on the right to reset the microcomputer and return the unit to the normal condition.

① Unplug the power cord from the wall outlet.
② While holding the I/⏻ (ON/STANDBY) key depressed, plug the power cord into the wall outlet again.

- Resetting the microcomputer clears the memory you entered and returns it to the initial condition when the unit left the factory.

Amplifier

Symptom	Cause	Remedy
Sound is not output or the volume level is low.	● Connection cords are unplugged from the jacks. ● MUTE is ON. (The MUTE ON indicator is blinking) ● The **TAPE 2 (MONITOR)** key is set to ON. ● The selected surround mode does not match the input signal.	● Connect them properly referring to "System connection". → 5 → 8 ● Press the **MUTE** key to OFF. → 24 ● Set the **TAPE 2 (MONITOR)** key to OFF. ● Select the surround mode according to the input signal. → 39
"PROTECT" blinks and sound is not output.	● Speaker cords are short-circuited.	● Unplug the AC cord, remove the short-circuiting and plug the AC cord again.
Sound is not output from one of the speakers.	● The BALANCE control is set to an extreme position.	● Adjust the Left/Right balance. → 23
Sound is not output from the surround speaker and/or center speaker, or their sound is very small.	● The surround speaker cords and/or center speaker cord are disconnected. ● The Surround play mode has not been engaged. ● The surround and center speaker levels are set to the minimum positions.	● Connect them by referring to the power amplifier's instruction manual. ● Set the presence mode. → 38 ● Adjust the surround and center speaker levels.
System control is not available when TAPE1 or MD is selected.	● "TAPE1" or "MD" is not displayed.	● Switch the display to "TAPE 1" or "MD". → 10
System control is not available when DVD or 6ch INPUT is selected.	● "DVD" or "6ch INPUT" is not displayed.	● Switch the display to show "DVD" or "6ch INPUT". → 10
System control is impossible.	● System control cords are connected incorrectly.	● Connect them correctly by referring to "System connection".

Tuner

Symptom	Cause	Remedy
Radio stations cannot be received.	● No antenna is connected. ● The broadcast band is not set properly. ● The frequency of the desired station is not tuned.	● Connect an antenna. → 9 ● Set the broadcast band properly. → 26 ● Tune the frequency of the desired station. → 26
Interference.	● Noise due to ignition noise of an automobile. ● Noise due to an influence from an electric appliance. ● Noise due to a nearby TV set.	● Install the outdoor antenna away from the road. ● Turn off the power to the appliance. ● Install the system farther away from the TV set.
A station which was preset cannot be received by pressing the corresponding numeric key.	● The preset memory was cleared because the power cord had been unplugged for a long period of time. ● The TUNER input is not selected.	● Preset the stations by auto memory again. → 28 ● Select the TUNER input.

Note

Donot use contact cleaning agents because they could case a malfunction. Be specifically careful against using contact cleaning agents containing oil, since they may deform the plastic components.

Remote control unit

Symptom	Cause	Remedy
Remote control operation is not possible.	● Batteries are exhausted. ● The remote control unit is too far away from the main system, controlling angle is too large, or there is an obstacle in between. ● The audio cords and system control cords are not connected properly. ● The source component to be operated does not contain the tape(s) or disc.	● Replace with new batteries. →13 ● Operate the remote control unit within the controllable range. →12 ● Connect properly referring to "System connection". →5 →8 ● Place the tape(s) or disc in the source component to be played.
The GRC screen is not displayed.	● Batteries are exhausted.	● Replace with new batteries. →13
The GRC display is abnormal.	● Batteries are removed while something is displayed.	● Remove and replace batteries after the information display has disappeared.

Set up code chart

Although each setup code is designed to work with a number of different models, certain codes may not work with some models. (Also, certain codes may only operate some of the functions available on a given model.)
With some models, be sure to keep the ENTER key pressed for a while.

Memory backup function

Please note that the following items will be deleted from this unit's memory if the power cord is disconnected from the AC outlet for approximately three days.

- The input selection is cleared and the TUNER input is selected.
- The volume setting is cleared and the volume is set to -65 dB.
- The receiving band setting is cleared and the FM band is selected.
- The frequency setting is cleared and 87.5 MHz is selected.
- The preset station memory is cleared.
- The voice activation setting is cleared and the activation by non-specified person is set.
- The surround setting is cleared and reset to the initial condition.
- The clock and timer setup is cleared and the clock display shows AM 12:00 which is blinking.

KENWOOD

For your records

Record the serial number, found on the back of the unit, in the spaces designated on the warranty card, and in the space provided below. Refer to the model and serial numbers whenever you call upon your dealer for information or service on this product.

Model_____ Serial Number_____